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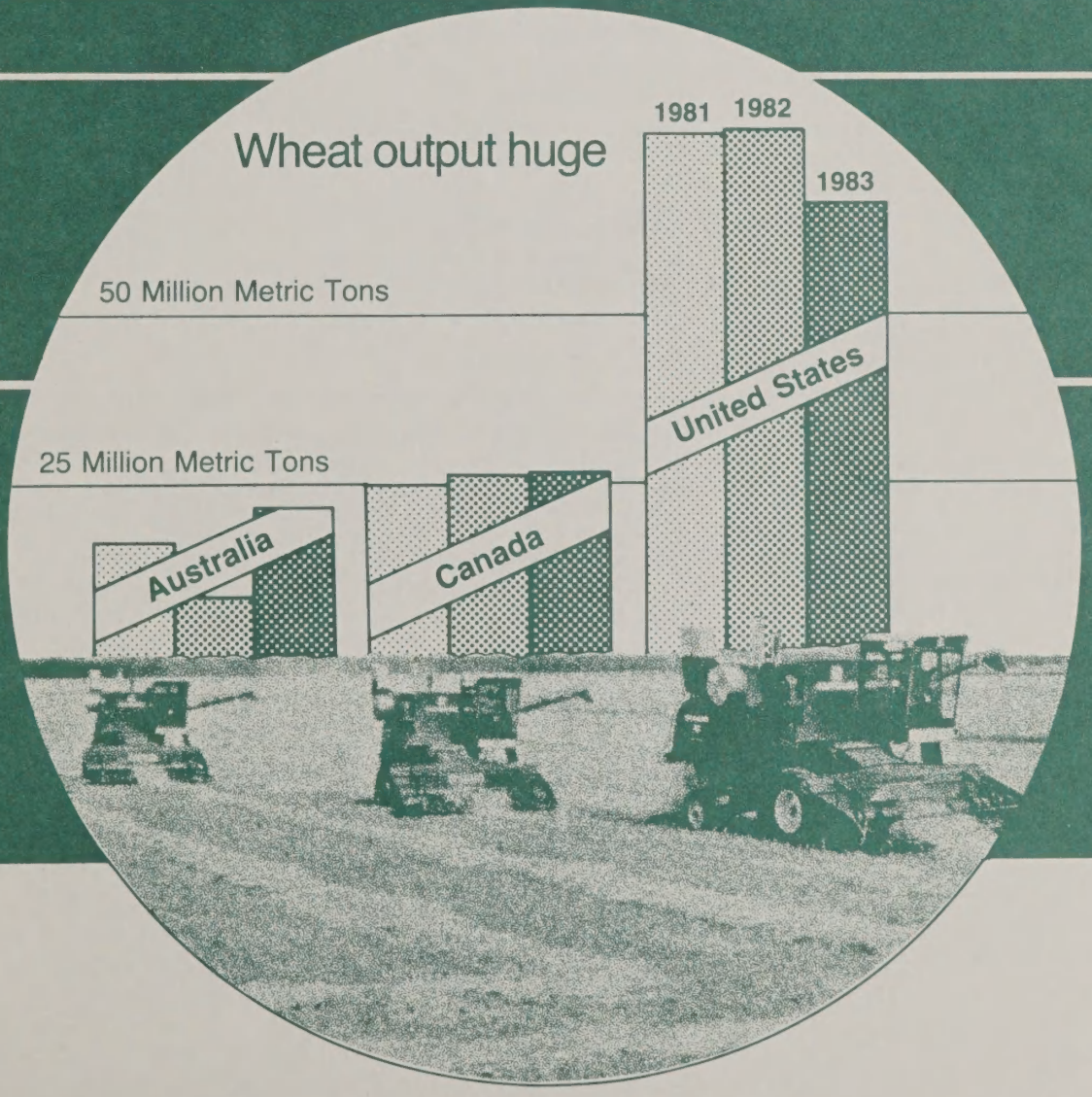
North America and Oceania

Outlook and Situation Report



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Situation Coordinator
Allen Johnson (202) 447-8378

Electronic Word Processing
Wilma Bradley
Nancy Jones

Principal Contributors
Sally Byrne
Wilma Davis (Statistical)
Larry Deaton
Carol Goodloe
Mary Anne Normile
Donald Seaborg

International Economics Division
Economic Research Service
U.S. Department of Agriculture
Washington, D.C. 20250

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Summary

Agricultural production during 1983 declined in Canada and the United States, but increased in Australia and New Zealand. Drought and producer participation in Government programs reduced U.S. feed grain output to about half that in 1982. On the other hand, grain production in Australia rebounded from the 1982 drought there and more than doubled.

Livestock production patterns were almost the opposite of crop trends: the United States' meat production set a record in 1983 while Australia's fell. These patterns resulted primarily from the countries' respective crop reductions. During the year of a severe crop shortfall, some additional breeding animals are slaughtered, temporarily increasing meat production—as with the U.S. The year after a short crop, high feed costs and recovering forage supplies cause producers to reduce livestock marketings, cutting meat production—as in Australia. Canada's 1983 meat output remained fairly high.

Larger 1984 crops are likely. Higher world feed grain prices will probably encourage large plantings in both North America and Oceania. Improvements in world economic conditions should benefit demand and could cushion price declines.

In contrast, meat production is likely to fall in North America and Oceania. Hog production in the United States is declining; fewer hogs will mean less pork during the second half of the year. U.S. cattle feeding may lessen. This drop will be partially offset by an increase in broiler production. Australia's meat production is likely to slip until both the cattle herd and the sheep flock are rebuilt following the drought.

Agricultural trade in 1983 was disappointing for Australia and the United States, while Canada's trade continued to expand. Australia lacked grain supplies. U.S. exports were dampened by poor economic conditions in the rest of the world, increased competition, higher output in grain-importing countries, and a strong dollar. Canada maintained its high exports because of importing countries' prior commitments to purchase from Canada. With the recovery in Australia's grain shipments, its export volume will rise.

Net farm income was low during 1983. Australia's crop receipts were cut by the drought. This, combined with rising farm costs, pulled net farm income to the lowest point in 5 years. Canada's farm income edged down as farm expenses rose faster than receipts. U.S. farm income declined slightly; higher Government payments and declining cash expenses failed to offset the reduction in inventories and in cash receipts.

Net farm income projections indicate improvements for 1984. Assuming normal weather, higher crop receipts and inventories are expected to offset increases in production expenses.

General business activity during 1983 improved in North America but declined in Oceania. Australia's economy suffered a recession because of a weakening in private investment and a drop in exports. However, the U.S. economy turned around last year, beginning solid growth; production rose and unemployment declined, despite continued high interest rates. Inflation rates remained low. In Canada, business conditions have followed U.S. growth since early 1983. Output has recovered from recession lows and inflation has been reduced.

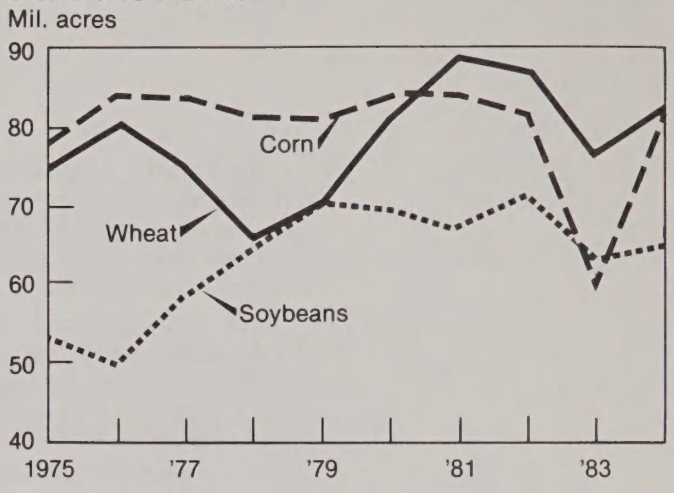
The 1984 economic outlook for all the countries in this region is brighter than last year. Rising incomes are expected to support higher personal spending and increasing investment. Improvement in the general economy should boost domestic demand for agricultural products.

Among the countries in this region, competition for major grain markets is likely to increase. The contraction of the cattle industry in Australia has freed more land for grain planting. The increase in bilateral long term trade agreements by the Canadian and Australian Wheat Boards is evidence that these countries are aggressively protecting their market shares.

UNITED STATES

During 1983, U.S. farmers were buffeted by bad weather, economic developments, and policy decisions. Farm output and prices were on a roller coaster. A year ago, following record harvests in 1981 and 1982, farm prices were low; the economy was just beginning to come out of a severe recession; and major Government programs were being implemented to bring crop supplies into better balance with expected demand. Crop production fell 26 percent in 1983 because a large chunk of cropland was removed from production and the worst drought in 50 years hit the nation's most productive growing areas. In 1984, the agricultural situation has reversed. Crop supplies are in better balance and prices are higher. Livestock production is tapering off while the economy is making moderate growth. Together, these factors should spell stronger livestock prices well into 1985. U.S. exports, however, will not rebound substantially until economic recovery in other countries is more robust.

U.S.: Acres Planted



1984 = estimated.

Crop Output To Recover in 1984

Total crop area declined sharply in 1983 as farmers responded to acreage limitation programs. In 1984, farm programs are generally less attractive, and farm prices will be higher at planting time. With normal weather, crop production will increase significantly and prices will once again come under downward pressure.

Most of the 1983 wheat crop was harvested before the worst of the drought struck the nation's crops. Thus, wheat yields were record high and production was off only 14 percent, even though harvested acreage fell 23 percent. Exports are lagging in 1983/84 because there are plentiful supplies abroad and strong competition in world markets. The U.S. share of the world wheat market is projected to fall below 40 percent for the first time since the early 1970's. Domestic use, however, is rising because of increased use of wheat for livestock feed. Wheat stocks will decline only moderately this season from last year's high level and will remain burdensome.

Wheat prices have benefited from short corn and soybean crops, but are still averaging only about the same as a year earlier. The lack of strong export demand and the high stocks-to-use ratio are dampening the wheat market while Australia and Argentina are harvesting large crops. In 1984, U.S. wheat farmers have been offered acreage-limitation programs, including payment-in-kind (PIK), but participation will not be as high as last year. Plantings should fall short of the very large 1981 and 1982 crops, but be moderately larger than 1983's plantings.

For U.S. corn, drought and acreage reduction programs cut 1983 production 50 percent. Other feed grains were not off quite as much. The huge carryover from earlier crops has helped maintain use. Exports have held about even with the 1982/83 pace, and domestic feeding has likely been off about 15 percent. Consequently, carryover stocks this fall will be low. Corn prices have been running about 25 percent higher in 1983/84 than last season. Thus, very little corn land is likely to be held out of production in 1984. Seedings may jump 21 to 23 million acres above the 60 million planted in 1983. The result will be large production in 1984, if weather is average.

The soybean crush for 1983/84 may be about 10 percent less than last season, while exports likely are down about 20 percent. Higher prices are rationing the U.S. supply of soybeans to prospective buyers. In early 1983, about planting time, the soybean/corn price ratio was about 2 to 1. But soybean prices have been running about 2.3 to 2.4 times higher than corn prices this winter, so more acres of soybeans likely will be planted this year. Plantings dropped 8 million acres in 1983 to about 63 million. This year, although seedings will rise, they will probably remain below the 71 million acres planted in 1982.

The cotton situation has brightened in recent months with the pickup in economic activity, both here and abroad. U.S. exports of cotton are forecast at 6.9 million bales, well above the 5.2 million shipped in 1982/83. Mill use continues to lose market share to textile imports, but use will rise this season. Higher use in 1983/84, along with the short crop, will reduce stocks next August to less than half of the 7.9 million bales carried into this season. The 1984 cotton program may be fairly attractive to growers because the target price was raised about 4 percent. Plantings may approach 11 million acres, up from 8.0 million in 1983.

Meat Production To Edge Lower

Wide swings in crop prices during the past several years have led to wide swings in profitability of livestock and poultry feeding. Higher feed costs in the summer and fall of 1983, along with low livestock prices, squeezed profits. Fewer cattle were placed on feed during this time and feeder cattle prices declined. Hog producers began taking steps to reduce production, while poultry and egg producers slowed output gains.

For the year, red meat and poultry production rose 4 percent to a new record. All meats shared in the increase. Production will stay large in the first half of 1984, but second-half output will drop.

January-June beef production probably will be up about 2 percent from a year earlier. Fed cattle marketings may be a bit lower, but slaughter of cattle directly off grass will rise. More dairy cows will be slaughtered as

farmers cut herds under the new dairy legislation, which pays producers $10 a cwt for reducing milk marketings 5 to 30 percent. Pork production will be up only about 3 percent. Broiler output could be off 2 percent because of low profits in 1983 and an outbreak of avian flu.

July-December meat production may fall 3 or 4 percent below 1983 levels. Beef production will decline moderately, reflecting smaller marketings of both fed cattle and grass cattle. Pork output could be down 6 to 8 percent as hog farmers respond to low profits. The declines in beef and pork will likely be partially offset by a 5-percent expansion in broilers.

Prices of livestock and poultry will strengthen this year as meat output edges down. Further gains in consumer incomes will bolster demand for meat. Thus, prices received by farmers for livestock and poultry likely will be moderately higher, particularly in July-December.

Cattle Inventory Declines Further

Cattlemen began to increase their herds after inventories reached a low of 111 million head at the beginning of 1979. Numbers rose to 116 million in 1982 as cattle prices increased. However, volatility in feed costs and cattle prices, as well as an uncertain general economy, led to slight inventory reductions during the past 2 years. There were only 114 million cattle on farms on January 1, 1984. Such an interruption of an upswing in the cattle cycle is unusual and points to the high level of uncertainty faced by producers.

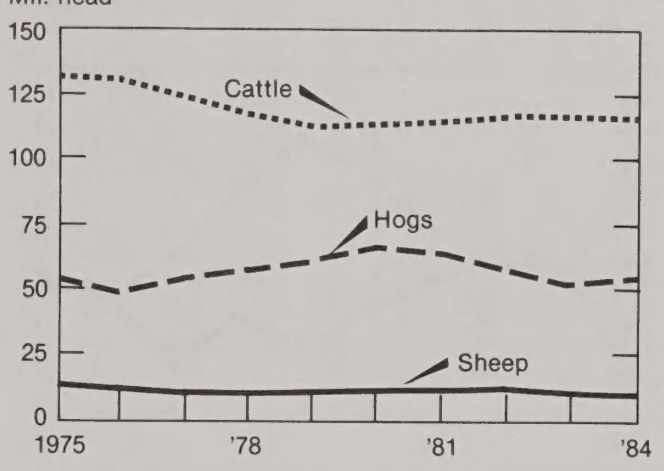
Higher livestock prices this year and better grazing conditions may encourage cattlemen to begin adding more beef cows to their herds. However, it may take several years of higher feeder cattle prices before a substantial addition to the cow herd is made. Little expansion in beef production is likely during the next several years because an increase in the calf crop is needed to support greater feeding activities. More heifers will be held from slaughter to increase the cow herd.

U.S. Export Prospects Mixed

Agricultural exports for fiscal 1984 are forecast at $37.5 billion, about 8 percent higher than fiscal 1983's depressed level. However, the export volume is forecast to fall about 5 million tons to 140 million. This would be the fourth consecutive annual decline in volume from the peak of 164 million tons in 1980. Almost all of the decline this year is expected in the oilseed complex. Grain exports will likely be unchanged from fiscal 1983. Cotton exports are a bright spot, increasing about 25 percent. The overall higher prices for U.S. exports are the result of reduced crop output and expected lower ending stocks.

The world economy improved slowly in 1983 and will probably continue to recover in 1984. However, general indicators show that there will be no strong increase in overseas demand. The dollar will probably remain relatively strong in world markets because interest rates in the United States will attract foreign capital. From the fall of 1981 to mid-February 1984, the dollar rose 31 percent against the British pound, about 25 percent against the Dutch guilder, about 22 percent against the German mark, and 4 percent against the Japanese yen. However, the dollar has recently slipped from peak February levels.

U.S.: Cattle, Sheep, and Hog Inventories



With the expansion in business activity, U.S. consumers have been buying more overseas agricultural products. A further rise in buying is likely in 1984, to about $17 billion, up 4 percent from 1983 and 10 percent from 1982. Since the rise in the value of agricultural imports will be less than the pickup in U.S. exports, the agricultural trade balance will increase to $20.5 billion. It had slipped to $18.4 billion in 1983.

Net Farm Income To Rise

Net farm income is estimated at $20 to $22 billion for 1983, about the same as in 1982. Incomes would have been higher if the sharp drought-related decline in the value of farm inventories had not been considered. In 1984, net farm income should be stronger, rising to $31 to $36 billion. But much of the gain reflects an expected increase in yearend crop inventories. Net cash income is expected to slip this year, and cash flow could be tighter for some farmers. Farm prices could average 5 percent above 1983, as prices for both crops and livestock climb moderately. Meanwhile, prices paid by farmers are projected to rise 4 to 6 percent. Although greater than during the past 2 years, the increase in prices paid largely reflects the continued moderate rise in the general inflation rate. Total cash receipts are expected to increase 2 to 5 percent from the $143 billion estimated for 1983.

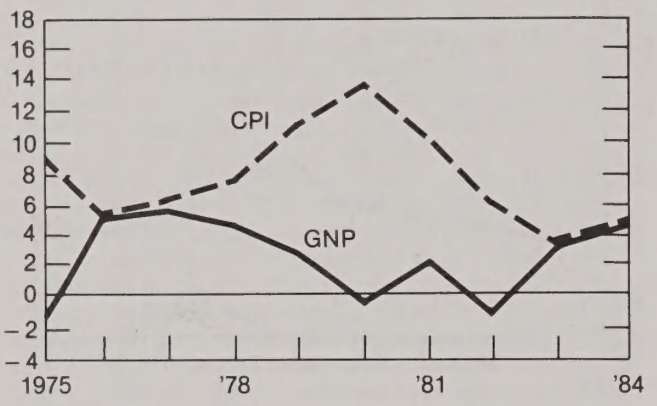
With input use expected to recover and prices paid higher, production expenses for 1984 could expand 6 to 8 percent. As farmers increase planted acreage, outlays for manufactured inputs will likely rise the fastest. Feed expenses are forecast to increase slightly as higher prices are offset by reduced use. Thus, the rise in farm production expenses will likely be more than offset by gains in cash receipts and the sharply higher value of farm inventories.

Economic Recovery Continues

The U.S. economy will continue to gather strength in 1984. Last year, real gross national product (GNP) rose 3.3 percent, following the moderate decline in 1982.

U.S.: Gross National Product and Consumer Price Index

% change



1984 = estimated.

Higher consumer spending gave the impetus to the recovery in 1983, but sharply higher business fixed investment will be the most important factor this year. Economic growth in 1984 may reach about 5 percent.

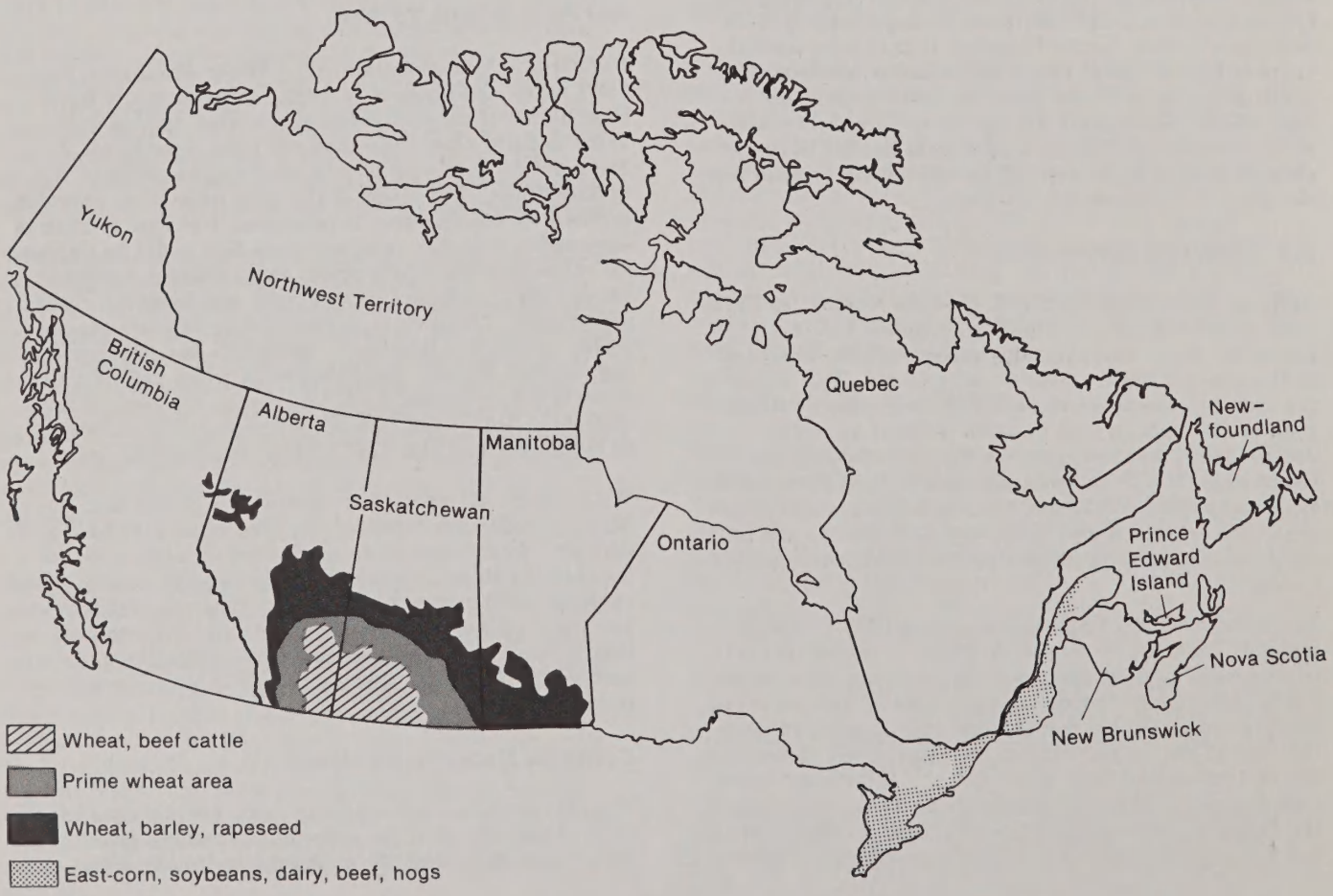
Consumers have demanded more imports as the U.S. recovery has proceeded. Since most overseas recoveries are lagging, however, net exports remain a weak link in the U.S. economic rebound. But, foreign demand for U.S. goods should increase as economic growth abroad accelerates later in 1984.

U.S. consumer demand for farm products will move up this year, especially for income-sensitive items such as meat. Consumer disposable incomes likely will rise close to 4 percent after allowing for inflation, compared with 2 percent last year. Population will increase only 1 percent, but unemployment will decline further. Unemployment fell from more than 10 percent of the labor force early in 1983 to about 8.5 in the autumn. Rates could drop below 8 percent in the second half of 1984 as capacity utilization of plant and equipment rises and business activity picks up. Thus, strengthening consumer demand for food and fiber should bolster farm prices the rest of this year and in early 1985. *(Donald Seaborg)*

CANADA

The value of Canadian agricultural production declined almost 4 percent in 1983, following 2 years of sharply higher output. Crop production fell 5 percent; slightly greater area offset reduced yields caused by poor weather. The livestock sector was characterized by expanded production and weaker prices. Lower prices for both crops and livestock much of the year likely resulted in a decline in net farm income for the second year in a row. Crop area and production should remain high in 1984, and livestock prices are forecast stronger. Thus, farm income should improve.

Farm Land Use in Canada



In 1983 the Canadian economy was marked by higher output and lower inflation than the year before, and stable exchange and interest rates. The trade surplus was only slightly less than 1982's record, as the depreciated Canadian dollar and economic recovery in the United States stimulated exports. The volume of agricultural exports was a record in 1982/83 and is forecast to be even higher in 1983/84. Grains and oilseeds exports should achieve the Canadian Wheat Board (CWB) 1985 export target of 30 million tons a year early.

Severe Recession Ends

Spurred on by increased economic activity in the United States, the Canadian economy enjoyed recovery in 1983. A 3-percent real growth rate made Canada one of the stronger economies in the world. Nevertheless, unemployment actually increased, because the industrial and manufacturing sectors remain somewhat depressed. The outlook for 1984 is moderately optimistic with forecast real GNP ranging between 3-5 percent. Consumer spending and inventory reductions stimulated economic growth in 1983. The big question for 1984 is whether business investment spending, which dropped 9 percent in 1983, will increase and move the economy beyond the initial recovery phase. Personal income should increase, but unemployment is expected to come down only slightly.

Canadian inflation fell rapidly in 1983. The "6 and 5" program, which limits wage and price increases for federal employees and certain federal programs to 6 and 5 percent, respectively, between June 1982 and June 1984, has helped ease inflationary pressures. The Consumer Price Index (CPI) has been declining since the program began. Inflation forecasts for 1984 range between 3.3 and 6.0 percent, led by higher wage rates and food prices.

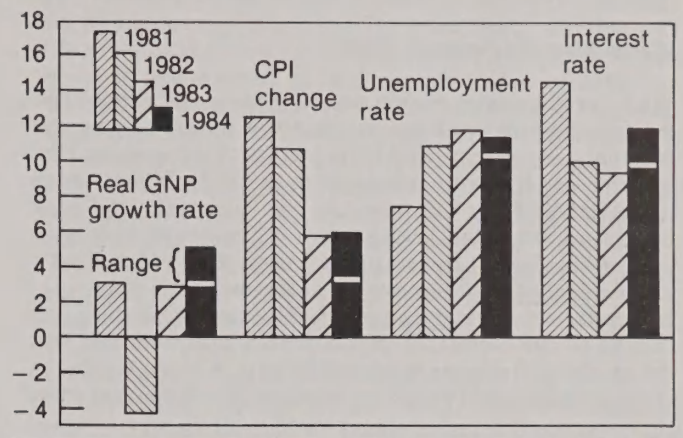
Interest rates were very high in 1981 and 1982, but dropped sharply in 1983 following the U.S. lead. The prime rate was remarkably stable most of the year, at 11 percent. However, the federal budget deficit remains large, increasing from about 4 percent of GNP to almost 9 in the last 4 years. The large deficit is exerting pressure on interest rates, but the Government may find it politically difficult to raise taxes or reduce spending because national elections will likely be called before the end of 1984.

External Economy Continues Strong

The interaction of these macroeconomic factors strongly influences Canada's exchange rate and balance of payments. In recent years the Canadian dollar has appreciated against every major currency except the U.S. dollar, where it is equal to only about $0.80. However, the United States is by far Canada's largest customer. Thus, the trade benefits Canada receives from its lower-value currency relative to the United States offset the disadvantages. To keep capital from flowing across the border and to protect the value of the currency, the Central Bank tries to keep interest rates slightly above U.S. rates, but this policy contributes to inflation.

Canada had a record trade surplus in 1982, when imports fell faster than exports because of the severe recession. The surplus declined slightly to Can$18 billion in 1983,

Canada: Macroeconomic Indicators and Forecast Range for 1984



as the economy recovered and import demand increased. Improvement in the U.S. housing industry stimulated higher exports of lumber and forestry products. Canada also became a net exporter of petroleum for the first time since 1976, due to a decline in imports. The agricultural trade surplus reached Can$5.7 billion. The trade surplus will remain high in 1984, but it will be influenced by economic activity in both Canada and the United States.

1983 Area Up, But Bad Weather Hurts Crops

At planting time in 1983, prices for most crops were depressed: in April, the CWB lowered initial prices for wheat, oats, and barley. But, relative prices favored wheat and rapeseed over barley and other coarse grains. In addition, barley stocks were more burdensome than wheat and rapeseed stocks. Thus, wheat and rapeseed area increased 9 and 30 percent, respectively, while coarse grain area declined 12 percent.

Growing conditions in early summer were good, but the hot, dry weather that plagued the United States also reduced Canadian yields. Coarse grain yields were hit hardest, leading to a 20-percent decline in production. The increased area for oilseeds offset a 10-percent reduction in yields, leaving production unchanged. Wheat yields were not seriously affected, however, and the crop emerged slightly ahead of 1982's record, thanks partly to a downward revision of 3 percent for the 1982 crop.

Since Canadian prices generally follow U.S. prices, lower U.S. crop production stimulated price increases in Canada, especially for barley and rapeseed. From a low of Can$88 per ton in October 1982, barley prices peaked at Can$152 in September 1983. Rapeseed prices increased over 40 percent during the same time. Because of the price increases, last October the CWB raised initial prices for barley and oats to encourage greater deliveries to meet an expanded export program for 1983/84 (August-July). Initial prices for Durum wheat were increased in late February, because export prices have been higher than anticipated.

Canadian fruit production in 1983 was slightly above the year before, while vegetable production was below the

record levels of 1982. Potato production fell 13 percent in 1983 because the unusually dry summer lowered yields. This decline, coupled with a drop in U.S. production, has resulted in sharply higher potato prices.

Crop Area To Remain High

Area for the major grains and oilseeds is influenced by various factors—relative prices, CWB initial payments and delivery quotas, and farm stocks. Crop area and production are likely to remain high in 1984. Wheat area may decline from 1983's record, but large exports and delivery quotas will keep area in the range of 12.5-13.0 million hectares. Initial prices may not be reduced, because wheat prices have risen somewhat on the strength of coarse grain prices. The ratio of ending stocks to use correlates highly with wheat area and will be at about the same level as the past 3 years (table 1). Trend yields could result in another 26-million ton crop.

Barley and rapeseed compete for area in the black and grey-wooded soil zone (see map). Area for barley and other coarse grains is expected to increase around 10 percent, since large exports will deplete stocks and help maintain prices. Initial prices for 1984/85 could be increased. Barley area will also increase somewhat at the expense of wheat because relative prices favor barley.

Rapeseed stocks remain very tight, but this factor appears to have less of an influence on area than does the barley/rapeseed price ratio. This price factor, along with rotational requirements, will limit increases in rapeseed area. A small increase in area and average yields should boost production slightly in 1984.

Flaxseed area and production should increase because large exports have reduced stocks. Soybeans and corn compete for area in eastern Canada. Area for both is likely to remain high in 1984 due to tighter supplies, but lack of suitable land will limit further expansion.

Grain and Oilseed Exports Set Record in 1982/83

Exports of major grains and oilseeds set a record of 29.2 million tons for 1982/83. The increased volume was made possible by an excellent harvest in 1982, increased demand for Canadian wheat by the USSR and China, and a smoothly functioning transportation system. However, wheat accounted for all the increase; exports of coarse grains and oilseeds declined.

Canada significantly boosted its share of the world wheat market in 1982/83, as wheat exports increased 16 percent. Most of Canada's improvement was at the expense of U.S. exports to the USSR and China, where Canada's market share increased substantially (table 2). The CWB also used large supplies of "special bin" wheat, damaged by an early frost in 1982, to gain access to several nontraditional customers—Mexico, Indonesia, Syria, and East Germany. Shipments of lower grade wheats came to 2.4 million tons in 1982/83, compared with only 709,000 in 1981/82.

Exports of coarse grains declined almost 19 percent in 1982/83, reflecting lower shipments to the USSR. Oilseed exports were down 6 percent, continuing the decline that began in the late 1970's. Rapeseed supplies were tight as a result of the frost in the late summer of

Table 1.—Ratio of ending stocks to use

Crop	Wheat	Coarse grains	Rapeseed
1977/78	58	37	18
1878/79	81	34	39
1979/80	50	16	49
1980/81	40	24	50
1981/82	41	25	28
1982/83	38	33	19
1983/84 (est.)	39	17	18

Table 2.—Canadian and U.S. shares of world wheat markets

Market	1980/81	1981/82	1982/83	1983/84(est.)
	Percentage of total imports			
World				
U.S.	43	46	42	37
Canada	17	18	22	21
USSR				
U.S.	19	34	15	20
Canada	25	26	35	25
PRC				
U.S.	63	63	32	42
Canada	21	24	34	35

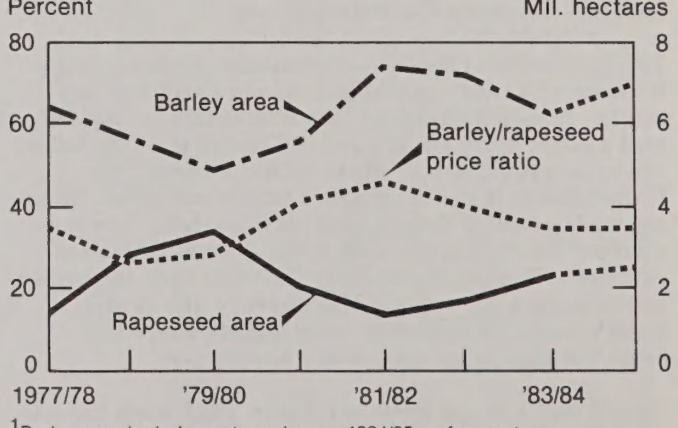
1982. Japan retained its dominant share of the market by taking 89 percent of Canada's rapeseed exports.

Exports in 1983/84 May Break Old Record

The outlook for the rest of 1983/84 is for continued expansion of grain and oilseed exports; record shipments are expected. Wheat supplies remain large, and crop quality is excellent compared with 1982's frosted output. Ironically, the CWB is having some difficulty marketing the higher grade wheats because of the price premiums they command. There is very little feed wheat and prices are 20 percent higher than a year ago. But the CWB continues to find new wheat customers; shipments are up significantly to India, Egypt, and Iran.

Coarse grain supplies are tighter and prices higher than a year ago, but exports have increased because of shorter

Canada: Rapeseed and Barley Price Ratios and Area[1]



[1]Barley area includes oats and rye. 1984/85 = forecast.

world supplies. Barley shipments, which account for over three-fourths of coarse grain exports, are expected to be 13 percent above 1982/83. Exports of rye have increased significantly; several Asian countries replaced some U.S. corn with cheaper Canadian rye.

In the first half of 1983/84, rapeseed exports lagged behind the preceding season. Higher prices and a reduced soybean crop stimulated a sharp expansion in domestic rapeseed crush and reduced supplies available for export. Exports picked up in early 1984 as crush slowed down and farmer deliveries increased. Flaxseed exports have been running substantially above last year because of short supplies in Western Europe.

Bilateral Trade Agreements Remain Important

The CWB continues to rely heavily on bilateral trade agreements with its major customers. In 1982/83 bilateral agreements covered 76 percent of wheat exports and 58 percent of coarse grain exports. The most recently concluded agreement was with East Germany. For 1983/84 the share of grain exports covered by bilateral agreements may drop, though, because the share taken by the USSR and China will decline.

The CWB extends Government-guaranteed credit to some customers: the usual terms are 10-25 percent down payment, a 3-year repayment period, and an interest rate one-quarter percent below the Canadian prime rate. Brazil, East Germany, Jamaica, Israel, Mexico, and Egypt have received credit in 1983/84. Although the CWB appears willing to extend credit to make new sales, credit sales as a percentage of grain and oilseed exports have declined since 1977/78 (table 3). There is currently debate in Canada about extending credit for non-CWB products such as oilseeds and products.

Beef Output and Exports Grew in 1983

Higher production and lower prices characterized the Canadian beef industry in 1983. Total inspected cattle slaughter was down about 2 percent, but heavier carcass weights pushed beef and veal production 2 percent above 1982. Cow and calf slaughter rose, partly reflecting lower quotas for milk production in 1983. Heifer slaughter declined for the first time since 1979. Generally weak prices and higher feed costs in the second half of the year left the beef industry in a poor financial situation.

Table 3.—Credit sales of Canadian grain and oilseed exports

	Can. Wheat Board	Export Dev. Corp.	Credit sales share of all grain & oilseed exports
	Million tons		*Percent*
1976/77	3.9	.4	21.6
1977/78	6.0	.4	29.0
1978/79	4.3	.0	21.4
1979/80	5.4	.0	22.7
1980/81	4.2	.0	17.4
1981/82	3.7	.0	14.2
1982/83 (est.)	3.6	.0	12.7

Source: Canadian Wheat Board.

Beef supplies are expected to tighten in 1984, reflecting the decline in cattle inventories since 1981. Cattle slaughter is expected to decline about 2 percent, and cattle prices are forecast to be generally higher in 1984. Per capita consumption of beef and veal, which has been stagnant at about 40 kilograms since 1976, is not expected to change in 1984 because higher incomes will be offset by increasing beef prices. Female slaughter rates have been high the past several years and could affect both beef production in 1984 and inventory levels in 1985. Beef production could decline more than the forecast amount if favorable prices encourage retention of female animals for herd rebuilding.

Canadian beef exports, 85 percent of which go to the United States, rose 5 percent in 1983, while beef imports remained about the same. Lower imports from Australia were offset by higher shipments from the United States and New Zealand. Beef exports to the United States are expected to increase slightly in 1984 despite lower Canadian and higher U.S. cow slaughter. U.S. beef exports to Canada may increase in 1984, given the outlook for lower fed cattle supplies in Canada.

Pork Supplies Large, But Exports Decline

Total hog marketings (slaughter plus live exports) were an alltime high in 1983; pork production was up 5 percent. High hog prices and low feed prices in 1982 and early 1983 stimulated slaughter, but profits dropped sharply in the second quarter as feed prices began to rise and hog prices fell. In late 1983, hog/barley price ratios dropped to their lowest levels in 3 years. This unfavorable price situation is expected to lead to a reduction in farrowings in the first half of 1984 and lower pork production in the second half. However, hog marketings will remain high in 1984 and yearly production will increase about 1 percent. Returns to producers could improve in late 1984 as slaughter drops off, especially if feed prices decline following a good harvest. Per capita pork consumption approached a record in 1983, and will likely be unchanged in 1984.

Canada's pork exports were down slightly in 1983, but remained substantially above earlier years. Live hog exports to the United States were up almost 75 percent because of price differentials and large supplies in Western Canada. Export volume of pork is not expected to increase further in 1984, because U.S. pork supplies will be big in the first half and competition will be strong in the Japanese market.

Poultry and Eggs Bring Higher Prices

Production and trade of poultry and eggs in Canada are regulated by marketing boards and show little annual variation. Broiler production is expected to increase only slightly during 1984. However, prices should average higher because of increased feed costs in first-half 1984 and higher prices for competing meats in the second half. Per capita consumption has risen slowly in recent years because the marketing boards limit production and maintain high prices to producers.

Canada has banned poultry imports from four U.S. States infected with avian flu. The flu has also affected the outlook for eggs. A reduction in the supply of eggs and sharply higher prices in the United States resulted in large Canadian egg exports and prompted the Canadian Government to place eggs under export controls to ensure adequate domestic supplies.

Dairy Surpluses Relieved

Lower production quotas in 1983 resulted in a drop in milk production and a 2-percent reduction in dairy cows. These measures were taken to help relieve surpluses of butter and skim milk powder. The quota was raised for the 1983/84 dairy year (August-July) and support prices for butter and skim milk powder were raised January 1. Therefore, a slight increase in milk production is forecast for 1984. The Canadian Dairy Commission (CDC) assesses levies on producers' milk deliveries to cover costs of exporting surpluses at prices below domestic prices. Butter exports will increase because of the large stocks, but nonfat dry milk exports will remain about the same as last year. Dairy support prices could rise sharply in April when the dairy program is no longer subject to the Government's "6 and 5" price control program.

Farm Income Slips

Net farm income is estimated to have fallen in 1983 for the second year in a row. Cash receipts were down about 1 percent, reflecting lower prices for both crops and livestock. Farm expenses rose only 2 percent, mostly because of declines in interest rates. Despite the decline in total farm income, income per farm has been rising because of reductions in farm numbers.

In January, the CWB announced final payments to producers for grain deliveries during 1982/83. Despite the final payment, total payments to farmers for all base grades of wheat, oats, and barley fell from 1981/82. No final payments were made for regular barley and the CWB barley pool had a deficit of Can$5.5 million, because the revenue earned from barley sales was less than the amounts paid out in initial payments (see the special article on grain stabilization). The deficit was financed by the federal Government.

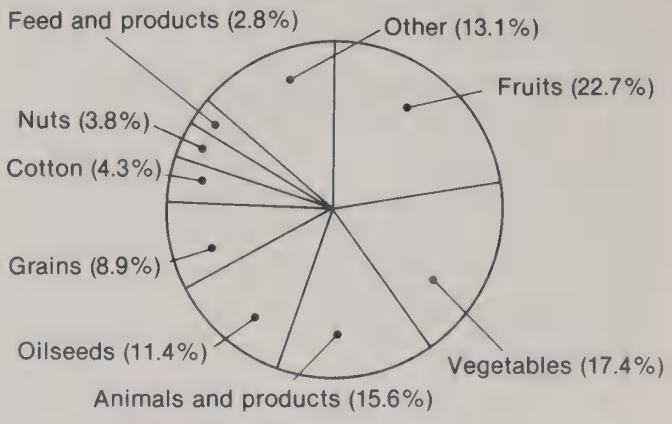
Net farm income could increase 5 percent or more in 1984. Cash receipts will increase because of higher prices for many commodities. Production expenses will continue to be restrained by moderate increases in inflation and interest rates. However, the increase in agricultural prices will lead to a 6-8 percent food price increase in 1984, compared with only 4 percent in 1983.

U.S. Agricultural Exports To Canada Increase

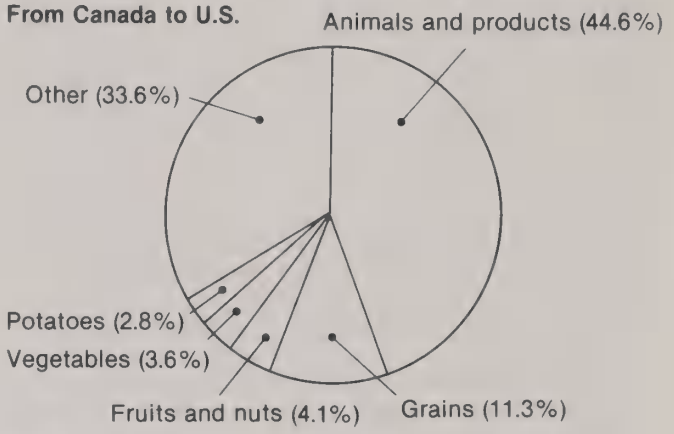
U.S agricultural exports to Canada came to $1.86 billion in 1983, making Canada the fifth largest customer of the United States. This total was a 2-percent increase over 1982, but under the $2-billion peak achieved in 1981. Agricultural exports equal 5-6 percent of total U.S. exports to Canada. For 1984, U.S. farm exports are forecast to increase about 2 percent, because of improved Canadian incomes and higher prices for many commodities.

Agricultural Exports, 1983

From U.S. to Canada



From Canada to U.S.



About half of Canadian imports are fruits, nuts, and vegetables—over $800 million in 1983. The United States also ships significant quantities of corn and soybeans to feed-deficit eastern Canada, but growth has slowed in these commodities because this region is using more domestic feedstuffs.

While U.S. farm exports to Canada have increased 13 percent since 1978, Canadian agricultural exports to the United States have more than doubled. Many of Canada's exports are regional—potatoes, fresh vegetables, and pork to the Northeast, and grain and oilseed products to the Northwest. The largest value export is live animals, mostly cattle and calves, to the Midwest. Some of the growth in Canadian exports can be explained by the exchange rate differential, which has widened in Canada's favor since 1976. This factor gives Canada a significant price advantage and has contributed to a shift in the flow of some products, such as pork.

In late 1983, the U.S. International Trade Commission found that Canadian exports of round white potatoes were not causing injury to the Northeast's potato industry. Canadian potato exports to the United States have increased substantially in recent years.

Federal Government Initiates Policy Changes

In 1983 there were two policy achievements in Canada—the creation of CANAGREX, an agricultural export agen-

cy, and passage of a major transportation bill (see box). CANAGREX is a Government agency designed to promote agricultural exports. Although it aroused much political debate over further Government intervention in agriculture, its budget totals only Can$12 million for 3 years. CANAGREX is forbidden to deal in any products under the jurisdiction of the CWB or the CDC or to pay subsidies to producers or processors to enhance export sales.

The Government has also been considering proposals to change national feed grain policy, to develop a stabilization plan for red meat, and to establish a national agency for broiler type hatching eggs. Although each of these proposals differs in scope, all have the potential to affect U.S.-Canadian trade: by altering price relationships (feed grains), encouraging greater production (red meats), or employing trade controls (eggs). Part of the impetus for these proposals is the federal Government's desire to consolidate and extend its influence over the provincial governments.

Taken together, the policy actions and proposals of 1983 represent a substantial commitment by the Government to support, regulate, and stabilize Canadian agriculture. *(Carol Goodloe)*

Canada Abolishes Crow's Nest Pass Rates

In November 1983, Canada's Parliament passed the Western Grain Transportation Act, ending the 86-year reign of the Crow's Nest Pass freight rates. The rates, which applied to rail movement of prairie grain and oilseeds to port, had been frozen at their 1897 levels. Rising costs had created a chronic revenue shortfall for the railways. A Government subsidy, ostensibly for maintenance of unprofitable lines, did not cover the railways' losses. Rail service to the grain trade deteriorated as the railways stopped investing in grain-related facilities, sales were lost, and future grain exports were endangered. [1]

The main features of the new law are:

- The Crow's Nest Pass rates will be replaced with new, higher statutory rates. Farmers will pay a greater share of the freight bill for grain; freight rates rose an average 18 percent on January 1 and should double by 1986. Producers will be paying about one-third of the costs of moving grain by then, compared with one-sixth in 1983.
- The Government will pay the railways Can$659 million annually, the amount of the "Crow benefit"—the difference between the true costs to the railways of moving grain in 1982 and what the producers paid under the Crow rate.
- In return for higher revenues, the railways have pledged to invest Can$16.5 billion in rail system improvements over the next decade.
- Freight rate increases to producers will be limited by a formula which divides cost increases between grain shippers and the Government. Also, a safety net provision limits freight charges to a percentage of the basket price of the six major grains.
- The volume of grain covered under the new statutory rate is limited to 31.5 million tons, the amount of statutory grain moved in 1981/82. Shipments beyond that level will be charged their full costs. Future freight rates will therefore depend not only on the railways' cost increases but also on the volume of grain moved.
- The list of products covered by the new rate structure is expanded to include oilseed byproducts (oil and meal), sunflowerseed, alfalfa, mustard seed, lentils, beans, and triticale.
- Certain exports to the United States will now be eligible for the first time to receive the new subsidized freight rates.
- Parliament will review the entire program in 1985/86.

Producers of export grain will find their costs rising as freight rates rise. The effect of this cost increase on production and export of western Canadian grain is not yet known. However, the safety net feature will shield farmers from rapid cost increases and should moderate the supply-dampening effect of higher rates. The Crow rates have been cited as hindering diversification and growth of the western agricultural economy by favoring production of grain for export and discouraging production of livestock and specialty crops. Because rate increases to farmers will be phased in, the bias in favor of export grain will be slow to disappear.

The new transportation bill will expand Canada's grain exporting capacity by providing funds for large-scale modernization of the western rail system. Large capital investments are planned, including double-tracking main western lines and reducing grades in the mountains of British Columbia. Relieving the bottlenecks that have plagued the grain transportation system will make Canada a more reliable supplier of grain and a stronger competitor against the United States in the world grain market. *(Mary Anne Normile)*

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[1]For additional information on this subject, see Mary Anne Normile, "Canada's Grain Handling and Transportation System". FAER-192, Economic Research Service, USDA, November 1983.

AUSTRALIA

In 1983, Australian agriculture recovered from the devastating drought which struck the eastern states early in 1982. Good rains began late last March and April in most eastern agricultural regions. The rains allowed pasture growth and grain plantings before winter arrived, although they were too late to improve harvests of summer crops. As is typical of Australian weather, 1982/83's drought was followed by rainfall well above normal, with widespread damage from excessive moisture.

Australia's livestock sector was less affected by the drought than had been expected. Nevertheless, sheep numbers fell 5 million head, in large part because of high death losses. Beef cattle numbers were reduced one-tenth, and herd rebuilding will be very slow.

Poor returns to agriculture in 1982/83 were the result of weak export and domestic demand as well as the drought. Economic recession coincided with increasing world output of many foods and raw materials, depressing prices. Price levels may remain disappointing in 1983/84, except for cotton. Abundant supplies in other exporting countries continue to overhang the world grain market, and import demand has not recovered. Although the world economy is pulling out of recession, little improvement in consumer demand will be recorded in 1983/84.

The Australian Bureau of Agricultural Economics (BAE) estimates that the value of agricultural production will reach a record $A14.75 billion in 1983/84. Most of the gain is attributable to a record grain crop, although average prices will be down. Larger returns are also forecast for slaughter cattle, wool, vegetables, poultry meat, and cotton.

Farm Land Use in Australia

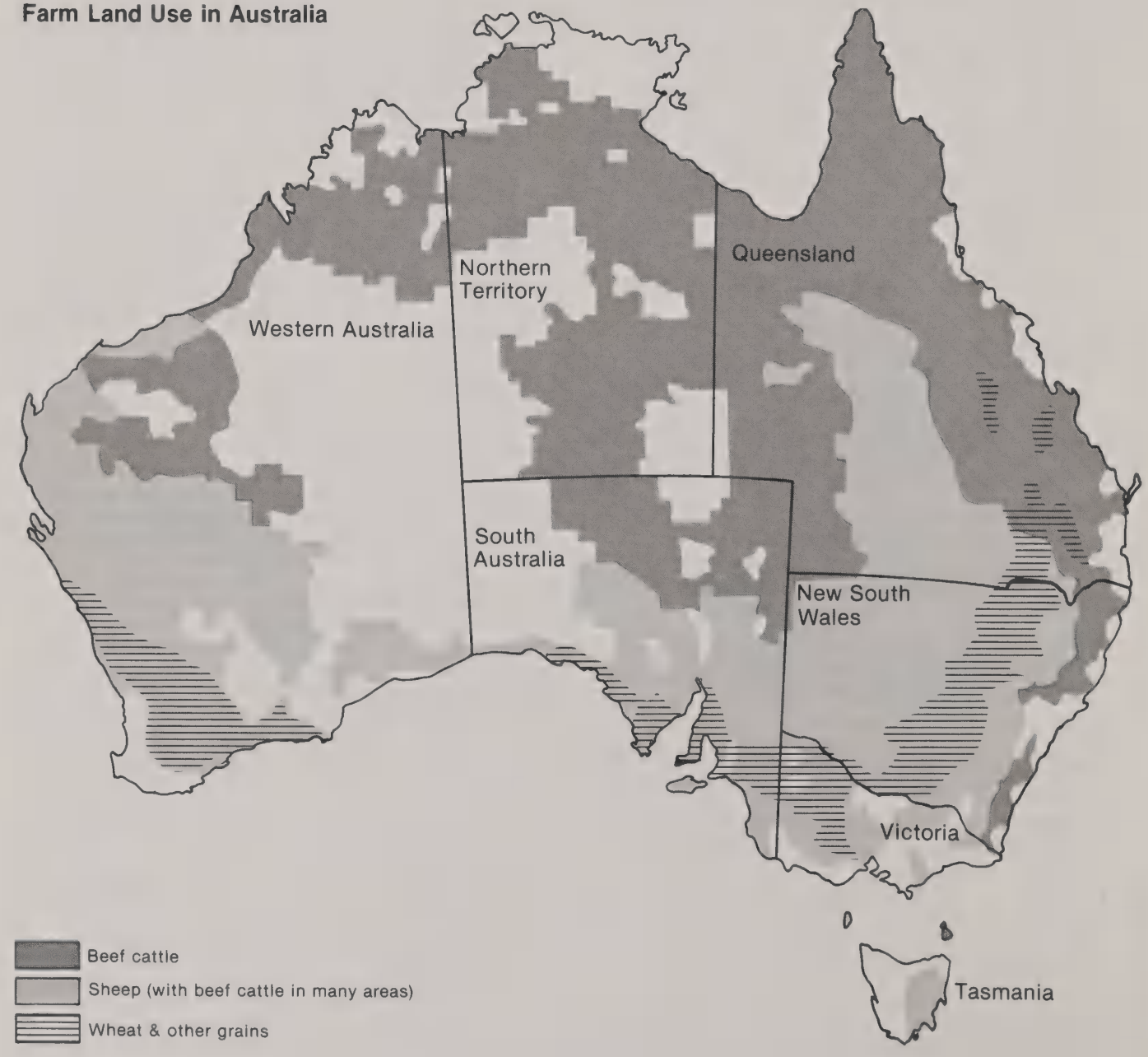


Table 4.—Value of Australian agricultural production and exports

Item	1981/82	1982/83	1983/84
		$A billion	
Gross value of ag. prod.			
Livestock	6.3	6.5	6.8
Crops	6.3	4.8	7.9
Total	12.6	11.3	14.7
Farm costs	8.8	9.3	10.2
Net value of ag. prod.	3.8	2.0	4.5
Ag. exports	7.9	7.4	8.1

1982/83=preliminary. 1983/84=forecast. Source: Australian Bureau of Agricultural Economics

Farm costs are expected to be up 11 percent for 1983/84. The index of prices paid may show a rise of about 9 percent, slightly below the hikes of the previous 3 years. Most of the increase will reflect inflation in the general economy. Livestock prices will also average higher. Agricultural exports are forecast to be up in value, but the BAE's index of export volume is estimated near 1982/83's low level. Expanded grain shipments will be offset by sharply lower meat exports.

Wheat Harvest Is Record

Wheat production reached a record 21.4 million tons in 1983/84. A 20-percent jump in the eastern states boosted the area to an alltime high. Farmers needed to improve cash flow to make up for livestock losses, and the reduction in livestock numbers opened up land for crops.

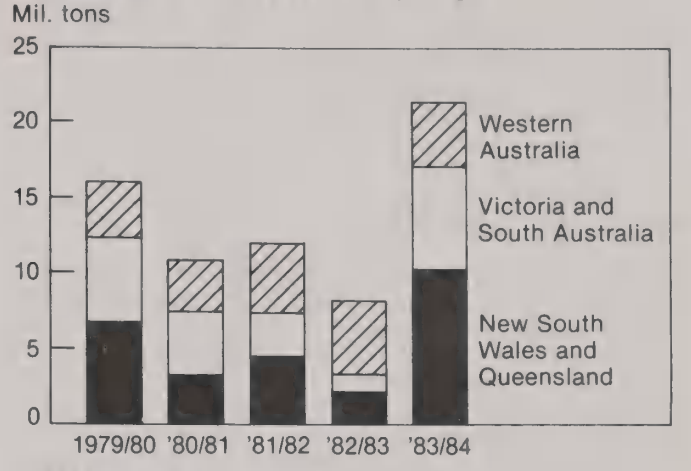
Widespread autumn rains provided moisture for germination, but heavy rains throughout the wheat areas caused flooding and disease. Intermittent rains delayed harvesting and lowered wheat quality. On balance, though, the wet season favored yields; at 1.70 tons per hectare, the average yield was second only to 1978/79's 1.77 tons. Post-drought cash constraints reduced fertilizer application, or yields could have been even greater. The wheat crop totaled 16.5 million tons in the eastern states, up from just 4 million the season before.

In Western Australia, plantings were delayed by dry weather, and area declined 5 percent from the 1982/83 record. Late rains gave the crop a good start, but a dry October reduced yield prospects. Most of the crop was harvested under favorable conditions, but rain and hail damaged some late-harvested wheat. The Western Australia crop is estimated to be a million tons below last year's 5.5 million.

Almost 21 million tons of wheat have been received by the Australian Wheat Board (AWB), and over 6 million tons have been downgraded because of weather damage. Some of the feed-grade wheat is lightweight rather than sprouted and thus should be marketable at discount prices.

Wheat exports were only 7.3 million tons in 1982/83 because of short supplies. Exports to Japan slipped 5 percent and to Egypt 16 percent. Shipments to most other markets were cut more. Limited by sluggish demand, exports are forecast at 13 million tons in 1983/84.

Australia: Wheat Production by Region



1983/84 Estimated.

The Guaranteed Minimum Price for the 1983/84 wheat crop was set at $A150 a ton, 6 percent above the previous 2 years. However, the export price will probably decline, jeopardizing premium payments for high-quality wheat.

The 1983/84 barley crop is estimated 1 million tons above the previous record. Planting conditions were rather dry in South Australia, the major producing state, but generally good in most other areas. Favorable spring weather encouraged growth. Harvesting conditions were better for barley than for wheat, and yields were well above the previous record. The area planted to oats reached 3.0 million hectares. Oats provided farmers the potential of good pasture for livestock or harvesting for grain. About 2 million hectares are estimated to have been harvested for grain, producing a record crop.

Winter oilseed plantings rebounded in 1983, approaching the record area of the late 1970's. Crops grew well early in the season, but the cold, wet weather in the winter and spring reduced yields. Safflower yields were above average, and rapeseed and linseed yields were about average.

Prospects Promising for Summer Crops

Record area is expected to be planted to sorghum in 1984. Most regions have adequate soil moisture, and the final area will be determined by expectations of demand for sorghum and sunflowerseed. Yields are forecast somewhat above average, and barring weather extremes production will be record large. A sharp rebound in sunflower area is likely, so output may double. The early Queensland crop is progressing well, and planting conditions have been very good in New South Wales. Soybean production is also expected to increase substantially.

Most reservoirs have been replenished, providing adequate irrigation water supplies, and a record area has been planted to cotton in 1984, with most of the gain in New South Wales. In Queensland, sowing conditions were generally good. Despite excessive moisture and a high incidence of seedling disease in New South Wales, average yields are anticipated.

Sugar production is estimated down 10 percent in 1983/84 from last year's record harvest, mainly because of dry weather early in 1983. Heavy December 1983 rains left some fields unharvested. Prices will remain depressed, with only slight improvement possible. Exports declined in 1982/83, and the larger carryover will allow exports to continue at 2.4 million tons in 1983/84.

Beef Production May Decline Further in 1984

The severe drought affected the cattle industry less than had been expected, in part because animal numbers had declined before the drought and maintenance requirements were more manageable. Several Government programs assisted livestock producers; subsidies were made available for fodder purchases and transport, shipping of livestock for agistment (paid grazing), and interest rates on loans. These programs and grazing of failed grain crops allowed many producers to retain a larger proportion of their herds than would have been possible otherwise. Nevertheless, low conception rates and heavy slaughter of female cattle during the drought resulted in a small calf crop in 1983.

Cattle and calf slaughter in 1983 dropped to the lowest level since 1974. Female slaughter was 51 percent of adult cattle slaughter in March and April—well above the level permitting herd rebuilding. By September, the share had dropped to 42 percent and total slaughter had fallen sharply. Ranchers' need for cash in the aftermath of the drought may have prevented a greater decline in slaughter. Cattle prices rose sharply. Young cattle prices at Sydney averaged $1.98 per kg (dressed) in June, up from $1.29 a year earlier. For the year, cattle prices averaged a third above 1982.

Beef and veal exports declined one-fifth in volume last year. Shipments to the United States were limited by a voluntary restraint agreement and fell to 268,000 tons (product weight), 15 percent below 1982 but near the 1981 volume. Exports to Japan were near 1982, and shipments to South Korea were down marginally.

Cattle numbers on March 31, 1984, probably will show a further decline. The slaughter rate is likely to drop significantly in 1984 as producers stabilize herds. While the calf crop may improve from 1983 levels, it will remain small because of heavy slaughter of the breeding stock during the drought. Thus, the cattle herd will increase marginally or not at all during 1984.

With higher retail prices anticipated, domestic beef consumption may decline. About 460,000 tons (boneless equivalent) will be available for export. If the Japanese global import quota expands, Australian shipments will certainly meet any increased allocation. Exports to South Korea should remain near recent levels unless trade relations between the two countries deteriorate. Shipments to other, less remunerative markets will decline.

Beef and veal exports to the United States may total 240,000-260,000 tons. Even with limited supplies, Australia is concerned about access to the U.S. market. The U.S. program to reduce the dairy herd is resulting in a small increase in nonfed beef output. Under the U.S. countercyclical meat import law, larger domestic supplies reduce the volume of fresh and frozen meat imports permitted. In its first quarterly estimate of 1984 meat imports under this law, USDA forecast global imports at 540,000 tons: the trigger level is 557,000. The Australians are concerned that if the trigger level is reached, their exports could be reduced further and prices depressed.

Only moderate improvement in beef prices in the United States is expected during 1984, despite a reduction in red meat supplies and a strengthening of demand. Beef prices in Australia reflect U.S. prices and the exchange rate between the currencies. Early prospects indicate that Australian saleyard prices for the year may average one-tenth above 1983.

Sheep Industry Recovering

Sheep numbers on March 31, 1983, were 5 million head below a year earlier. With ewe numbers reduced and conception rates poor during the drought, lambings declined 8 percent. Slaughter was down 16 percent because of weak demand for mutton and improving prospects for wool. Thus the 1984 inventory is forecast up slightly.

Lamb production fell 5 percent in 1983, and mutton production dropped 32 percent. Nevertheless, prices were very low during most of the year. Lamb prices were depressed by low export prices, caused by massive stockpiles in New Zealand and by shrinking demand on the domestic market. Sheepmeat exports declined to all major markets. Live sheep exports continued to expand because of the strong preference for fresh meat in the Middle East.

Herd expansion will probably accelerate in 1984. The lamb crop may be almost 4 million head larger than last year's. Slaughter of both lambs and sheep will remain low. Sheepmeat production could rise marginally because of heavier weights. Exports are not expected to improve from 1983's poor performance unless shipments to Iran resume. Mutton export prices are likely to be very low. Live sheep exports will remain near 7 million head. With stronger consumer demand for red meats and higher beef prices, lamb prices may average 15 percent above 1983.

Wool Production Declining

Reflecting weak demand, the minimum reserve price set by the Australian Wool Corporation (AWC) was raised just 1.3 percent for 1983/84. The support price rose 9 percent in 1982/83 because of a 2.9-percent increase at the beginning of the season and a 7.5-percent increase following the March devaluation of the Australian dollar.

Because of drought, the number of bales sold at auction fell 2 percent in 1982/83, but the sale price averaged slightly higher. The global economic recession severely reduced demand for wool textiles, and the major exporters built up large wool stockpiles. Australia's wool exports declined 4 percent in volume. Larger shipments to the USSR, China, and Eastern Europe were more than offset by reductions to most other markets.

This weakness of demand forced the AWC to purchase a remarkable 24 percent of the wool offered at auction dur-

ing 1982/83, up from 15 percent in 1981/82 and 5 percent in 1980/81. AWC stocks were almost 900,000 bales at the season's close, the highest level in 6 years.

This high level of support continued into 1983/84. World demand is recovering, but the strength of the Australian dollar makes their wool less competitive. The AWC expects to be a net seller in the second half and close the season with fewer than 1 million bales.

Production is estimated to decline 3 percent in 1983/84 to the lowest level since 1977/78. As the economic recovery accelerates, prices should strengthen, and the value of output may be record high.

Outlook Mixed for Other Livestock Products

Despite a decline in dairy cow numbers, milk production rose 5 percent in 1982/83. Even in a drought year, yield per cow increased. Genetic and nutritional gains and better management practices are improving the efficiency of Australia's dairy industry. Output is expected to rise 5 percent again in 1983/84.

These production gains are occurring in a period of depressed demand. Per capita consumption of milk and milk products, except for cheese, is not increasing. Prices on the export market are very low. The need to export expanding volumes of dairy products at falling prices will restrain increases in price supports in 1984. Thus, profitability is expected to decrease somewhat from recent years' highly attractive conditions.

Poultry meat production increased in 1982/83 despite high feed costs. With larger supplies, retail prices were up only 5 percent—half the rate of inflation. Consumer demand was poor because the recession reduced away-from-home food sales. Profitability in the poultry sector should improve in 1983/84 because of lower feed costs and higher red meat prices.

Major structural changes are occurring in Australia's hog industry. Large operations are expanding rapidly while many small producers are leaving hog farming. The severely depressed market prices in 1983 intensified fears that vertical integration will reduce marketing opportunities and returns of the small producers.

Hog numbers were up in March 1983, and 1983 pork production recovered. High feed costs and low prices resulted in poor returns, but some improvement is likely in 1984 for most producers. Pork production is forecast near the 1983 volume.

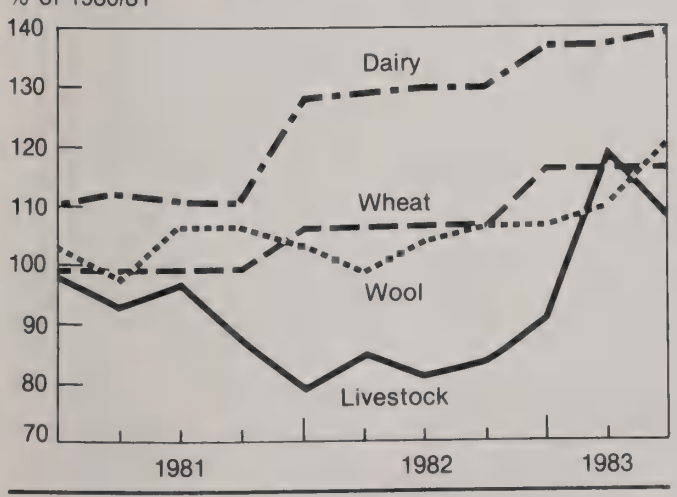
Economic Recovery Is Underway

The recession struck Australia later than other industrialized countries, and severe drought coinciding with low export prices for agricultural exports further depressed the Australian economy in 1982 and early 1983. The economy is slowly recovering, and gross domestic product (GDP) will be up in 1983/84. The turnaround in the farm sector is a major factor in the recovery. The global economic recovery will strengthen demand for Australia's exports. Expanding consumer and Government spending, along with rebuilding of inventories, will boost factory production. Improving corporate profitability is a highly favorable element in the recovery.

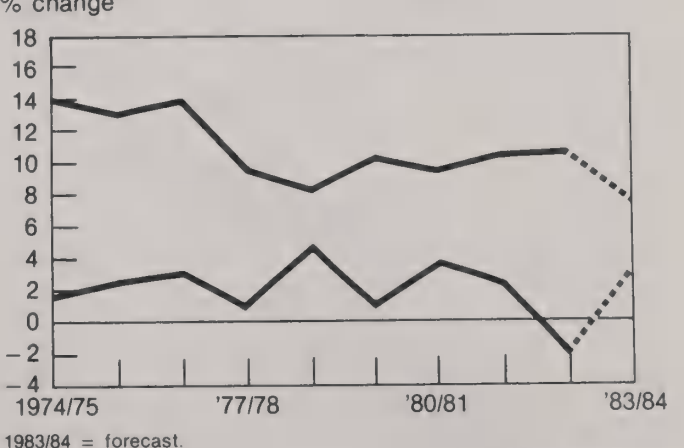
Inflation remains a serious concern; about 15 percent of GDP depends on exports, and Australia's inflation has outpaced price rises in other developed countries. The Australian Government has moved to restrain wage increases, which have contributed significantly to inflation in recent years. However, the wage indexing scheme could create inflationary pressures if the Australian dollar depreciates.

On March 8, 1983, the Australian dollar was devalued by 10 percent. During the succeeding 9 months, the dollar appreciated steadily, to the dismay of those who saw the devaluation as an aid to export competitiveness. On December 9, the Government of Australia announced it would allow the dollar to float and find its value by market forces. Several other actions were taken simultaneously to relax foreign currency and investment regulations. Longer term prospects are for a strong currency due to Australia's industrial and raw material base. *(Sally Breedlove Byrne)*

Australia: Prices Received by Farmers



Australia: Gross Domestic Product and Consumer Price Index



1983/84 = forecast.

NEW ZEALAND

Weak demand troubled the agricultural sector in 1983. However, the slowing of New Zealand's inflation rate provided some relief to farmers, and weather improved during the year. Most areas began to recover from drought during the fall, and rather dry winter weather made pastures more usable. Spring pasture growth was mostly good, improving the outlook for livestock.

The value of gross agricultural output rose only 5 percent in 1982/83, below the inflation rate. Sheepmeat and wool prices were depressed, and the high level of meat output resulted from a reduction in cattle and sheep numbers. The value of gross agricultural output is estimated up 9 percent in 1983/84 because of higher prices for most products except milkfat.

Investment in agriculture is likely to decline for the fourth straight year in 1983/84, and prospects indicate a further decline in 1984/85. This shrinking of capital and maintenance expenditures threatens New Zealand's productive base and export earnings from agriculture, particularly livestock.

Farm Land Use in New Zealand

Source: New Zealand Atlas, 1976

Livestock Outlook Is Mixed

Dairy cattle numbers have been expanding from the low reached in 1981, and a further small rise is anticipated in 1984. Milk production will probably continue to increase 1 to 2 percent annually in 1984 and 1985. Domestic consumption of milk and dairy products is stagnant in New Zealand, forcing production gains onto the export market. Diversification of the mix of products exported remains a priority.

Because of rising costs, net returns to dairying declined marginally in 1982/83 and may drop a tenth in the current year. The supplementary minimum price (SMP) for milkfat is being held at 324 cents per kg, unchanged since 1978. However, the average payout was 360 cents, 6.5 percent above the previous year.

New Zealand's beef cattle herd continues to shrink. A period of declining real beef prices and rapidly rising costs coincided with unfavorable weather, and total cattle numbers decreased 2 percent in 1982/83. Slaughter was down 6 percent, but the average weight was higher because of the greater proportion of heavy-weight animals and fewer calves in the slaughter mix. Thus, beef and veal production totaled near the 1981/82 output. Exports rose 8 percent in volume, with gains to Japan, South Korea, and Canada. Shipments to the United States were about unchanged.

Cattle numbers on June 30, 1983, were the lowest since 1966. Because of the drought, animals fared poorly over the winter. Slaughter is estimated down in 1983/84, but the herd will probably decline further. Meat production could be down one-tenth, and export volume will likely slip. Beef production will remain depressed in 1984/85, even if herd rebuilding does not resume.

Drought, depressed consumer and export demand for meat, and inflationary impacts on returns have slowed the growth in the sheep herd. June 1983 numbers were down marginally because of dry pasture and heavy lamb slaughter. Fewer ewe lambs were retained for breeding.

Lamb slaughter rose 12 percent in 1982/83, but average weights were down. Sheep slaughter increased 14 percent. Sheepmeat production reached a record 681,000 tons (carcass weight), causing massive exports at low prices. Exports were up one-fifth in volume, but much of the growth was attributable to large shipments to Iran, held over from the prior season. Exports to the USSR increased because of a very large sale of cold-storage stocks at a loss. Shipments to the United Kingdom declined significantly.

In 1983/84, the slaughter rate is expected to decline somewhat from 1982/83's high level, but no expansion in the herd is anticipated. Meat production may decline slightly. Little additional growth in exports is likely because foreign demand continues sluggish. Thus, carryover stocks will likely remain burdensome—almost 30 percent of output, compared with a normal carryover of 10 to 12 percent. If favorable weather prevails, the lamb crop will increase, and the sheep herd may expand marginally in 1984/85.

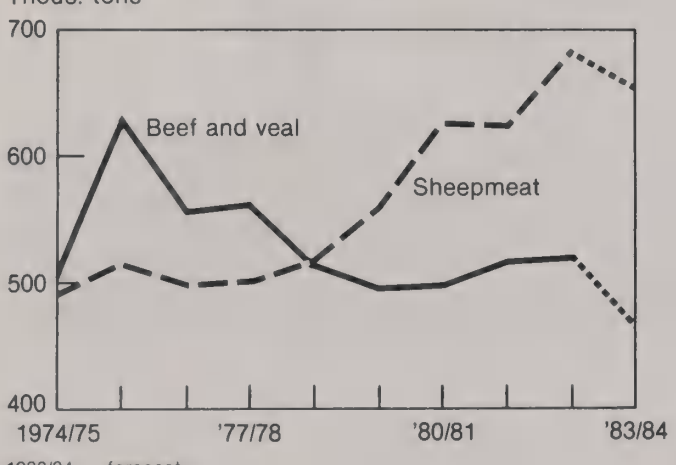
Meat output will remain large in 1984/85, and aggressive marketing will be necessary to reduce stocks. The domestic market consumes less than one-fifth of New Zealand's sheepmeat production; use has been falling since the late 1960's. Real returns to beef and sheepmeat have declined in recent years in New Zealand because of the nation's high inflation rate. Accelerating farm input and slaughterhouse costs raise the cost of exporting meat. New Zealand is a price-taker on export markets, so these higher expenses mean lower returns to producers.

The New Zealand Meat Producers Board sustained a loss of $181 million on export sales in 1982/83. Payments under the SMP scheme reached $349 million.

Wool production increased 5 percent in 1982/83. Export volume rose 17 percent, allowing stocks to be drawn down from the high carryin level. Exports were up sharply to Iran, Pakistan, China, and the United Kingdom. However, auction prices averaged 256 cents per kilogram, the same as in 1981/82—down 12 percent in real terms.

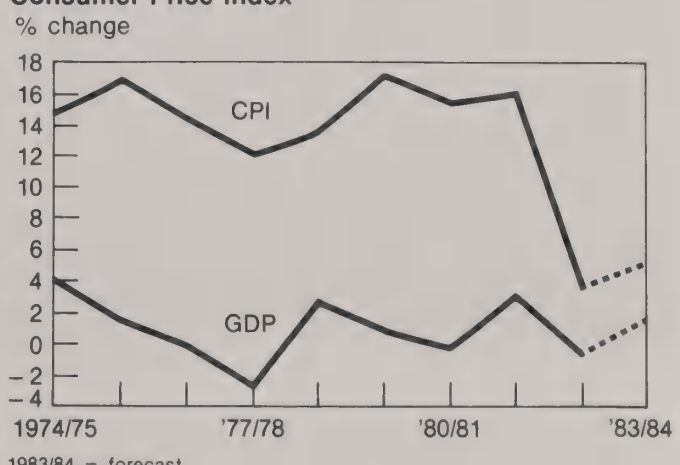
Production in 1983/84 may remain near last year's volume or decline slightly. Sales were up 14 percent in volume and 39 percent value in the first quarter.

New Zealand: Meat Production



1983/84 = forecast.

New Zealand: Gross Domestic Product and Consumer Price Index



1983/84 = forecast.

Wage-Price Freeze Curbs Inflation

The New Zealand Government began a wage-price freeze in June 1982 to combat inflation, which had been in double digits for almost a decade. In June 1983, the freeze was tightened and extended. In consequence, the CPI rose less than 4 percent in 1983. Price controls expired on February 29, 1984, and were replaced by a price surveillance scheme. Proposals for price increases will be monitored, and no supplier will be able to raise prices more than twice during the next year. The Government intends to keep inflation at or below the 5-percent average forecast for the developed countries in 1984.

The expanding global economy is pulling New Zealand out of recession. The country's economy may grow 1 to 2 percent in 1984. Export competitiveness has improved because of the low inflation rate. Homebuilding and retail sales are the strongest segments of the domestic market.

Unemployment will likely worsen this year. During the 1970's, the labor force was declining because of net outward migration. Currently, the labor force is growing, and the economy is unable to expand employment significantly. *(Sally Breedlove Byrne)*

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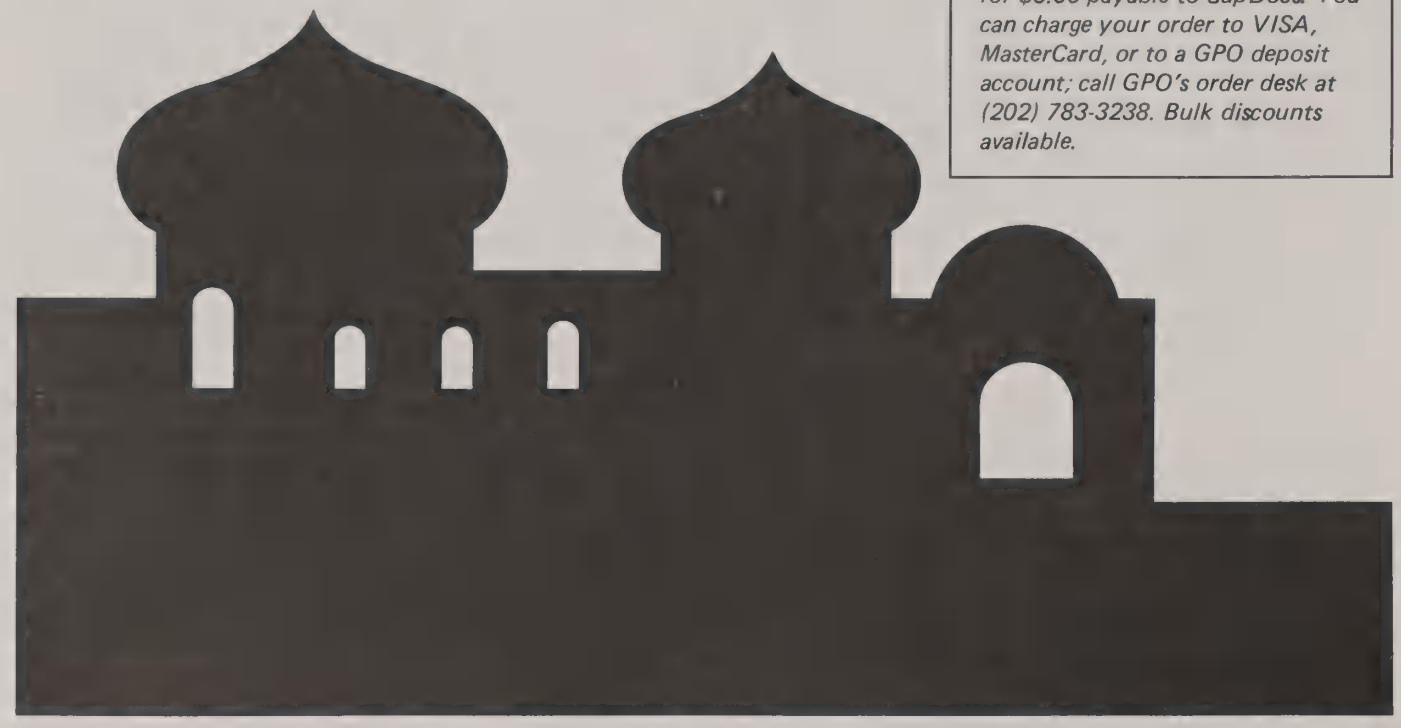


Grain Stabilization Policies in Canada and Australia

J. Larry Deaton and Mary Anne Normile [1]

Abstract: Canadian and Australian grain stabilization policies are used to even out highs and lows in grain prices and producers' incomes. The most important policies have been implemented through the marketing boards, but Canada especially has supplemented these policies with additional efforts such as the Western Grains Stabilization Program.

Keywords: Stabilization policy, grain, wheat, coarse grains, prices, Canada, Australia.

Government intervention in agriculture in the United States, Canada, and Australia has taken many different forms, with most intervention aimed at stabilizing prices or income. Each of these three countries has adopted a different approach to stabilization of the grain sector. The main thrust of United States policy has been to establish a floor price—the loan rate—and encourage voluntary participation in the program through use of various instruments such as target prices and deficiency payments. Canada and Australia have gone a different route, pursuing policies that make use of statutory marketing boards as the foundation of their grain stabilization policies.

The two British Commonwealth countries also contrast with each other. Australia generally has sought to stabilize prices received by producers. Canada, on the other hand, has attempted to stabilize producers' incomes. Australia's stabilization policy for wheat producers relies almost totally on the Australian Wheat Board, while Canada supplements Canadian Wheat Board activities with other programs. A final difference is that the AWB deals strictly with marketing wheat, relying on state marketing boards for handling coarse grains, while the CWB handles barley and oats in addition to wheat.

THE PURPOSE OF STABILIZATION SCHEMES

The general, stated objectives of stabilization schemes often represent a compendium of more specific goals. For example, the frequently stated objective of stabilizing farmers' incomes may have more specific aims of maintaining some degree of comparability between farm and nonfarm incomes, assisting low-income farmers, and actually reducing the year-to-year variability of gross or net farm income. Consequently, policymakers frequently find themselves faced with a policy that has many objectives, some of which may be mutually exclusive, and rather few policy instruments available to achieve these objectives. The Canadian and Australian grain stabilization policies are little different from most other countries' stabilization policies in this respect.

[1]The authors are, respectively, section leader and economist in the International Economics Division, ERS.

CANADIAN GRAIN STABILIZATION POLICIES

Prior to 1973, Canada took a market-oriented approach. In 1973 and the years that immediately followed, however, farm income experienced volatility that was unknown during the relatively stable 1960's. Since then, the Canadian federal and provincial governments have instituted a number of programs to stabilize returns to the farm sector. Because shifts in foreign demand can drastically affect Canadian farm income and because Canada is too small a supplier (approximately 20 percent of world wheat trade, 5 percent of coarse grain, and 5 percent of oilseeds) to substantially affect world prices, Canadian policy generally emphasizes (1) stabilization of income (or net margins) for goods that are traded, and (2) price stabilization for goods produced primarily for the domestic market. Price support is frequently achieved through supply restrictions by marketing boards, complemented by import restrictions. Income stabilization programs usually involve direct payment to producers. Input subsidies, longterm trade agreements, and marketing boards—particularly the CWB—provide support to grain producers indirectly.

The Canadian Wheat Board Pools Receipts

The Canadian Wheat Board, which controls the sale of wheat, barley, and oats for export, is the most influential marketing board in Canada. Its designated area includes the Prairie Provinces of Manitoba, Saskatchewan, and Alberta, and the grain-producing Peace River Valley of British Columbia. The CWB also controls the sale of these grains for nonfeed domestic use and sells some feed grains to eastern users.

The CWB maintains a stable price to producers within a crop year through price pooling—all receipts from the sale of board grain are pooled and producers receive a share based on their deliveries of CWB grain during the year. All producers are paid the same initial price for their type and grade of grain.

Initial Price Is Minimum

The initial price is announced early in the crop year, usually prior to planting. Announcing the price thus reduces uncertainty for producers. The producer of board grain receives the initial price when delivering grain to a

commercial elevator. The initial price also serves as the guaranteed minimum price for the year.

After all board grain delivered to the elevator system in the crop year is marketed, the difference between the initial payments disbursed and the total receipts in the pool for each grain is returned to producers in the form of "final payments." Consequently, each producer of board grain receives the same price for grain regardless of when it was delivered.

Month-to-month price stability is thus assured for producers who sell to the CWB. Year-to-year price stability is less assured. While the initial price serves as a de facto floor price, it is based on estimates of market conditions during the coming marketing year and not on any normative considerations such as maintaining some level of returns to the producer.

The initial price, moreover, does not set a floor price for all board-eligible grain produced in the west, since opportunities to sell grain to the Wheat Board are controlled through the delivery quota system. If quotas are restrictive, more grain will be available in the off-board market, driving off-board prices down.

Advance Payments Even Out Short Term Income

Cash flow protection to grain producers is provided by the Prairie Grain Advance Payments Act of 1957. The act, administered by the CWB and financed by the federal Government, empowers the CWB to make cash advances up to a $6,000 limit to producers when board delivery quotas restrict sales opportunities. Cash advances are for board grain stored on-farm and are repayable to the CWB when grain is delivered. The advance payments become particularly important in smoothing out short term income when country elevators become congested and delivery quotas are restrictive. The Advance Payments for Crops Act of 1977 extended this program to producers of all storable grain outside the CWB designated area.

In addition to the instruments of the CWB, the Canadian Government has used several other stabilization programs, principally in an effort to stabilize incomes. These include the Western Grain Stabilization Program, the Agricultural Stabilization Act, the Crop Insurance Program, and several supplementary programs administered by the provincial governments.

Western Grain Program Funded by Producers

The Western Grain Stabilization Program (WGSP) was initiated in 1976 in response to the extreme volatility of grain markets in the mid-1970s. The program's objective is to protect short term aggregate cash flow for commercial grain producers in a specific region from unforeseen market fluctuations or production cost shifts. The area targeted is the CWB's designated area. Included as "grain" under the program are wheat, barley, oats, rye, flaxseed, rapeseed, and mustard seed. All producers who deliver grain to the CWB are eligible, but participation is voluntary. Producers may contribute 2 percent of their receipts for grain marketed during the year, up to a maximum of $60,000 of sales. For every $1 paid into the fund by producers, the Government contributes $2. The Government also pays the costs of administering the program.

A payment from the fund is triggered when the difference between aggregate grain receipts and aggregate cash costs for grain production falls below the average for the 5 preceding years. The WGSP formula may therefore mask price movements if marketings are particularly large in any year. The total outlay paid to producers will be equal to the difference between the current year's net cash flow and the previous 5-year average net cash flow, adjusted by the proportion of sales by producers in the program. The individual producer receives a payment based on contributions to the fund for the previous 3 years. The fund is designed to be self-sustaining over a 20-year period.

Since the program's inception in 1976, payouts have been made twice—in 1977 and 1978. About 75 percent of all eligible producers currently participate. While the program recently has been criticized for not providing for a payout when farm income is falling, the WGSP does have several attractive features. One is its being funded in part by contributions from those whom it benefits. Another is that, by including only variable costs, the program does not prevent long term structural adjustment.

ASA Supports Prices, Adjusts for Costs

The Agricultural Stabilization Act (ASA), passed in 1958, set up a price support program for specified commodities. Support was mandated for wheat, oats, and barley produced outside the CWB designated area. Other commodities may be designated at the discretion of the Minister of Agriculture. Wheat was later removed from the list because it is covered under the Two Price Wheat Act, and corn and soybeans were added. The ASA stabilizes prices to producers by means of a deficiency payment, paid whenever the final producer price of the commodity in question falls below 80 percent of the previous 5-year average.

Unlike the WGSP, which stabilizes net cash flow, the ASA supports price, with an adjustment for changes in cash costs. In addition , while one-third of the WGSP is funded by producers, and participation is voluntary, the ASA receives no contributions from producers, but all producers are covered.

Stabilization of interannual farm income is also achieved through voluntary programs which shield participating farmers from crop losses resulting from natural phenomena. All-risk crop insurance is available throughout Canada and covers most major crops. Crop insurance is a joint program of the federal and provincial governments with costs shared by participating farmers, the federal Government, and the provinces.

While not designated as such, input subsidies for production and marketing activities effectively stabilize producer returns by shielding producers from cost increases. Subsidies on grain transportation, for example, have become an important part of Canadian agricultural policy. Input subsidies differ from other types of stabilization programs because they provide support consistently, rather than being triggered by fluctuations in prices or

incomes. As a result, grain transportation and other input subsidies tend to influence long term production patterns and resource allocation.

AUSTRALIAN GRAIN STABILIZATION POLICIES

Australia's position as a price taker in world grain markets is quite similar to Canada's. Both countries acquire and sell grain through statutory marketing boards. However, in contrast to Canada, Australia has relied almost solely on these boards in pursuing stabilization policies. The objectives of these policies have been much more limited in scope in Australia and have tended to focus almost exclusively on price stabilization.

The Australian Wheat Board Sets Export Offer Price

The AWB is empowered to receive all wheat produced in Australia and control all wheat marketing, both domestic and export. The AWB currently derives its authority from the Wheat Marketing Act of 1979 (as amended in 1982 and 1983), which sets forth the specific forms of Government intervention and assistance for the wheat industry.

The AWB usually sets an export offer price according to a present, or some designated future, U.S. export price, adjusted by such factors as exchange rates, ocean freight rate differences, and quality differences. An important qualification here is that the AWB may not necessarily make the sale at the initial offer price. Nevertheless, this policy has meant that the export prices of Australian wheat have tended to follow closely the export prices of U.S. wheat.

From the first stabilization plan, in 1948, through the sixth (which expired in 1979), the basic goals and mechanisms remained approximately the same. The goals for all of the plans could be summarized as: a reduction in price and income variability for wheat producers, a consequent achievement of greater resource efficiency as a result of the risk reduction, and increased production of wheat to meet an expected expansion in both domestic and export demand. The mechanisms through 1979 involved a home consumption price (charged for wheat moving into the domestic market), a stabilization price for the wheat which was exported, and a fund to draw upon to pay the stabilization price. Under the current plan, though, there have been some major changes in the mechanisms used to achieve the goals.

Home Consumption Price Formula Changed

Although a home consumption price (HCP) is still used, the formula for developing it has changed. The HCP was constructed so that on average, it would be 20 percent higher than the expected f.o.b. export price. The HCP also operates under the restriction that it cannot change by more than 20 percent from one year to the next. An additional change in domestic pricing has been to establish two other domestic prices for wheat. In addition to the price for wheat used as flour, there are also now separate prices for wheat used for feed and for wheat used as starch or starch derivatives for industrial purposes.

Guaranteed Minimum Payment Based on 3-Year Moving Average

Under the current arrangement, Australian wheat growers still receive a first advance payment, now known as the Guaranteed Minimum Payment (GMP), but its calculation has undergone a major revision. It is payable to the grower upon delivery of the wheat to the handling agent for the AWB, with some additional payments to the grower occasionally stretching out for several years until all the remaining quantities of wheat in that year's pool are sold.

Under the previous wheat plans, the first advance payment varied significantly from year to year. For example, from 1969/70 to 1979/80, it ranged from a low of 40 percent (of the grower's total return) in 1974/75 to a high of approximately 90 percent in 1969/70. As a new first advance, the GMP is constructed to be 95 percent of the estimated 3-year moving average of: (1) the price for the past year, (2) the expected price of the current year, and (3) the predicted price for the next year.

As a moving average, the GMP introduces an element of interannual price stabilization. During periods of falling prices, the GMP will be significantly larger than the old first advance payments would have been. On the other hand, during periods of rising prices, the GMP will be smaller. A further force for reducing price instability is the stipulation that the GMP can move no more than 15 percent from year to year.

Under the current formula for the GMP, the initial payment should coincide more closely with the export price than the old first advance. Likewise, it should average significantly higher than the previous first advance.

GMP Financing Also Changed

Another change lies in the financing of the GMP. Instead of being provided to the AWB by the Rural Credits Department of the Reserve Bank, funds will now be borrowed on the private market. Growers who had long requested earlier payment of the advance have in effect achieved their desire; however, they must now pay for it in terms of additional interest payments that will be charged against the final return of the pool. In 1981-82, the AWB for the first time used commercial credit to finance its total requirements. Because this has resulted in further costs incurred by the AWB, the Australian Government has provide a new subsidy—for the interest on this commercial credit—to the AWB.

Some Other Assistance Available

Although the most important stabilization programs for the Australian wheat industry come about through the marketing and pricing policies of the AWB, there are other governmental programs which have additional, although relatively minor, stabilizing effects. Programs of concessional credit (less than $10 million in recent years), along with a very small disaster relief program (no more than $2.0 million in any year since 1970/71), and a subsidy on fertilizer (approximately $15 million in recent years) have been available to wheat farmers.

These programs are essentially income transfers to the wheat industry, and have relatively insignificant stabilizing effects.

Australian Coarse Grains Marketed by State Boards

Australian coarse grains—unlike their Canadian counterpart—are not marketed by a national marketing board; instead, they come under the authority of a number of state marketing boards, some of which operate across more than one state. For example, barley produced in either Victoria or South Australia is marketed by a board chartered by both states. On the other hand, barley produced in the states of New South Wales, Queensland, and Western Australia is handled by separate boards within those states.

Some of the boards also operate across several commodities. The Grain Pool of Western Australia not only markets the barley of the state, but also operates a voluntary oat pool for growers who want to sell to a board. Similarly, oats produced in South Australia are marketed by the Australian Barley Board. In New South Wales, however, there is a separate statutory board for oats, and in Victoria, the Victorian Oatgrowers Pool and Marketing Company, Ltd., markets most of the oats grown in that state. This company also acts as a handling agent for some of the oats produced in New South Wales.

The marketing of sorghum is handled by three statutory boards operating in two states. There is one in New South Wales, while two operate in designated exclusive areas in Queensland. Finally, the relatively small amount of corn that Australia produces—restricted almost totally to northern New South Wales and Queensland—is marketed by the Yellow Maize Marketing Board for the former and by the Atherton Tableland Maize Marketing Board for the latter.

For most of the coarse grains, sale of the product to the statutory marketing board is mandatory, although exemptions are allowed in some cases. The most common exemptions given are for retention of the product for feeding purposes on the farm where it was grown or for sales by growers to end users within the same State. In this latter case, however, a special license from the applicable marketing board is often required and sometimes, a payment of an administrative charge—on a per ton basis—to the board for the quantity so marketed.

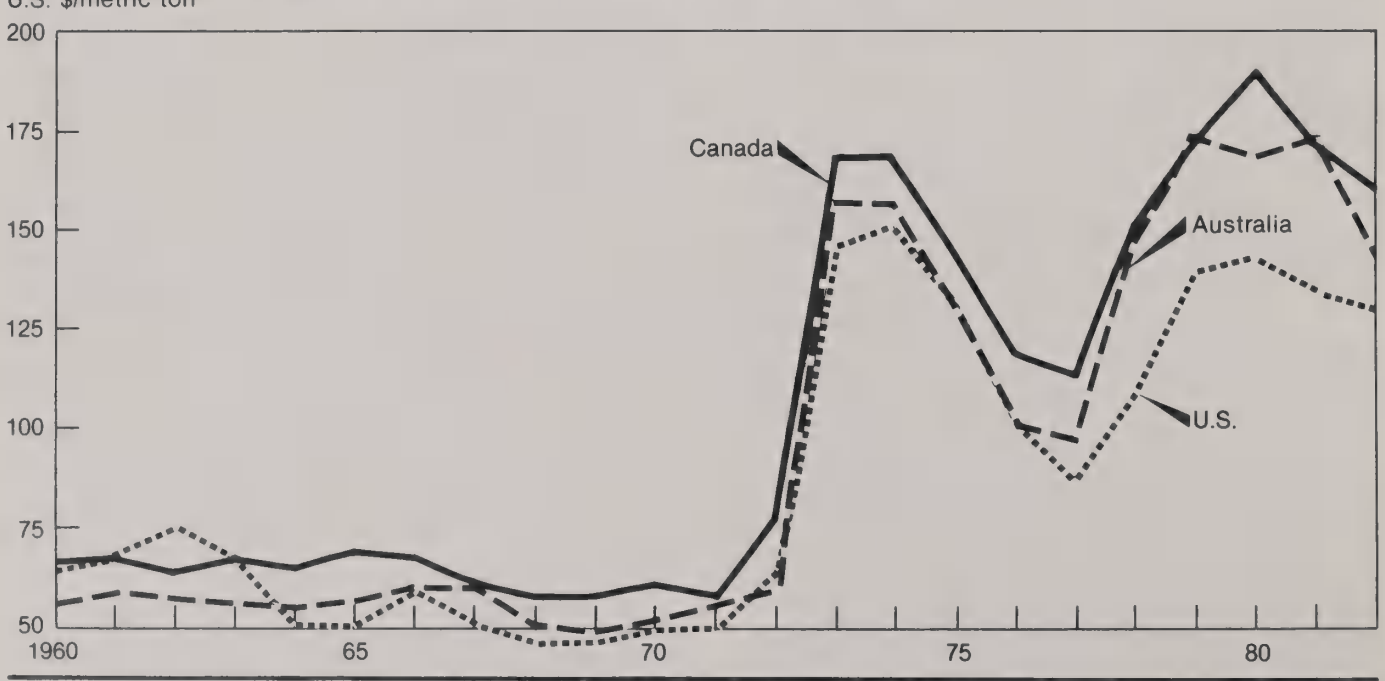
Pricing of coarse grains in the Australian market is directly affected by the home consumption pricing scheme for wheat, because of the substitutability for feeding. Additionally, because coarse grains must obtain ministerial approval for export, their prices have tended to closely follow wheat prices in the domestic market. Nevertheless, there is no formal stabilization policy for coarse grains; stabilization matters are also complicated by the greater number of marketing boards, each with its own policy.

Thus the only effective stabilization provided by these marketing boards for coarse grains is within a given year, through pooling of returns to growers who market through a given board. Prices received by producers of coarse grains reflect the pooled returns from domestic and export sales of the separate marketing boards. As a relatively small exporter of coarse grains, Australia is even more obviously a price taker in this world market than in the wheat market. Prices in the Australian domestic market for coarse grains tend to closely follow world prices.

CONCLUSIONS

Neither the Australian nor the Canadian grain stabilization program is designed for providing long term income protection which would inhibit structural change by

Wheat Prices Received by Farmers in the U.S., Canada, and Australia



keeping inefficient producers in production. The overall objective of both sets of programs could be summed up as ensuring solvency without encouraging excess production. Structural adjustments generally have been allowed to take place, influenced by long-run conditions rather than by short term cash flow problems.

Price and income stabilization for grain producers in Canada and Australia continue to be influenced by a number of factors, only some of which are under the control of the governments. The export prices are largely determined in the world market and have closely followed U.S. grain export prices in recent years. Similarly, in all three countries, the prices received by farmers—prices which are themselves greatly dependent on the export prices—have moved together over the past 2 decades. In a very real sense, U.S. loan rates, adjusted for transportation costs, have set floor prices for the grain produced in these countries as much as for U.S. grains. Nevertheless, actual returns and the variability of these returns or prices remain dependent on the selling decisions of the separate marketing boards.

Outlook for Australia's Beef Cattle and Sheep Industries

Sally Breedlove Byrne [1]

Abstract: Australia's livestock producers are emerging from severe drought and economic recession. Because cattle raising is perceived as a risky enterprise, producers will expand cautiously. The sheep industry is expected to recover more rapidly.

Keywords: Australia, cattle, sheep, beef, mutton, lamb, wool, production, consumption, exports.

The sheep industry provides about 22 percent of the value of agricultural output in Australia and the beef cattle industry, 18 percent. Thus, the outlook for these industries is critical to the farm economy. Livestock producers are now coming out of the worst drought in many years. Because beef cattle raising is perceived as a risky enterprise compared with crops and sheep, producers are taking a cautious approach to rebuilding herds. Cattle numbers will recover very slowly. For several years, beef and veal production will remain well below that of the late 1970's and early 1980's. The sheep herd, however, is expected to be built up more rapidly.

The global economic recovery portends favorable returns from both cattle and sheep for several years, with demand for meat and wool strengthening. Australia should be able to export its available supply of beef and lamb at relatively high prices compared with 1980-83, but domestic consumption will likely be restricted by short supplies and high prices.

Cattle Industry Weakened by Drought

The Australian beef cattle industry has shrunk in recent years. Because of weak demand and poor weather, returns to beef cattle have been low relative to crops and sheep. In the early 1970's, the cattle sector expanded significantly, in part because wheat delivery quotas reduced the area planted to crops. In 1975, over 151,000 farms had beef cattle. By 1981, the number had declined to 106,000. The severe drought of 1982/83 is thought to have caused more producers to liquidate their cattle enterprises.

According to 1981 data, only 3 percent of beef cattle enterprises have more than 1,000 cattle, and 5 percent of producers own 56 percent of the cattle herd. Yet less than half of Australia's cattle producers raise other livestock or crops commercially. Cattle-raising is a land-extensive rather than intensive farming sector. Normally, fewer than 100,000 cattle are in feedlots.

Since the mid-1970's, the cattle industry has become even more extensive, shifting from the southeastern states, where there are alternative land uses, to the dry areas of the north and west. Grazing lands are poorer,

[1] Agricultural economist, International Economics Division, ERS.

Table 5.—Australian cattle inventory and slaughter

Year	Beginning inventory			Slaughter	Slaughter rate
	Total	Dairy cows	Beef cows		
	Thousand head				*Percent*
1975	30,793	3,111	14,897	9,530	30.9
1976	33,434	3,062	15,202	11,434	34.2
1977	31,533	2,816	14,021	12,700	40.3
1978	29,330	2,635	12,728	12,346	42.1
1979	27,112	2,441	11,774	9,837	36.3
1980	26,203	2,377	11,726	8,829	33.7
1981	25,168	2,353	11,269	8,090	32.1
1982	24,533	2,347	11,032	9,450	38.5
1983	22,471	2,324	9,904	8,000	35.6
1984 proj.	21,700	2,350	9,900	7,250	33.4
1988 proj.	23,100	2,350	10,300	7,200	31.2

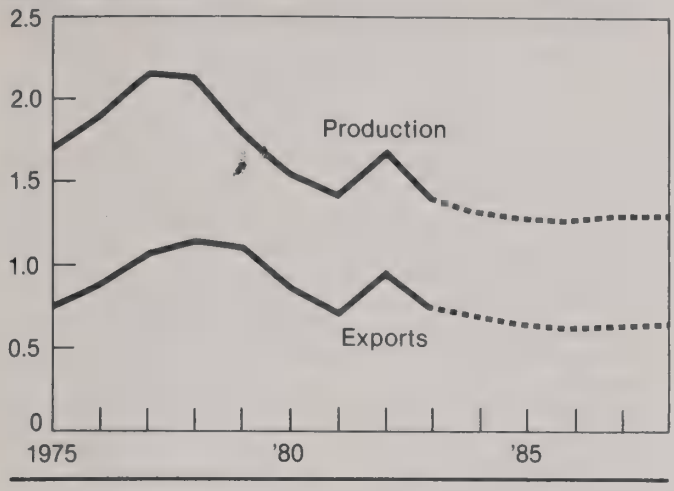
and producers have less control over animal health and breeding. Thus, this movement of the herd has hindered productivity improvements. In New South Wales, Victoria, and South Australia, cattle numbers fell by 7 million, or 43 percent, from the mid-1970's to 1983. In Queensland, Western Australia, and the Northern Territory, numbers declined 16 percent over the period. Crops became more profitable, and wheat producers received a guaranteed minimum price, while cattle became a riskier enterprise. The 1982/83 drought in eastern Australia followed several years of low profitability in cattle raising. As a result, slaughter rates rose sharply, and females comprised 51 percent of slaughter in 1982 and the first 5 months of 1983.

The drought ended abruptly in the fall of 1983 (April-June), and the pace of slaughter dropped sharply. Even with the reduced slaughter, though, inventory numbers will be down again on March 31, 1984. The smaller breeding herd and lower conception rates during the drought did not allow herd rebuilding. Low beef prices during 1983 and poor drought performance by cattle further reduced the beef industry's attractiveness relative to crops—which offered quick cash returns—and to sheep.

The cattle herd will increase marginally if at all during 1984. The slaughter rate may drop from 35.6 percent of the beginning inventory in 1983 to below 33 percent, as producers receive conflicting signals. Export prices are expected to improve this year. If U.S. red meat supplies

Australia: Beef and Veal Production and Exports

Mil. metric tons



meet current expectations, prices may be substantially higher late in 1984 and in 1985. Thus, slaughter may decline further than is currently projected, if producers hold cattle for the price rise.

Slaughter rates will probably remain low through the rest of the 1980's as herd rebuilding accelerates. The pace of recovery is expected to be considerably slower than in other expansion periods. Beef and veal production will be substantially below levels of the past decade, and both exports and domestic consumption will be curtailed.

Outlook for Wool Bolsters Sheep Industry

The Australian sheep herd dropped sharply in the 1970's. The cattle boom of the early 1970's was followed by an expansion in crop area and by world economic recession, which weakened demand for wool.

According to 1981 data, the average size of an Australian sheep herd is 1,661 head. Only 6 percent of producers own more than 5,000 sheep, but about 30 percent of Australia's sheep are in these large herds.

Sheep numbers declined 3-1/2 percent during the recent drought—much less than the cattle sector. Much of the reduction resulted from excessive death loss.

Most sheep farmers derive more income from wool than from lamb sales. Thus, sheep raising holds less risk than cattle because the Australian Wool Corporation guarantees a minimum reserve price for wool and wool provides cash flow during drought. Drought conditions reduce wool growth, causing a lighter fleece weight, which is somewhat compensated for by finer quality.

The global economic recovery will boost demand for wool, and consumer tastes appear to be shifting to wool for both apparel and carpeting. Wool is therefore providing more encouragement to the sheep industry than are prospects for meat. Demand for mutton and lamb is unlikely to be strong on the domestic or foreign market through the 1980's, although consumption will be boosted by higher beef prices.

The sheep herd is probably expanding slightly in 1983/84. March 31, 1984, numbers are estimated at 2 million head above a year earlier. Further increases in both Merino sheep (primarily for wool) and crossbreeds (primarily for fat lambs) are projected through the 1980's.

Australia: Lamb and Mutton Production and Exports

Thous. tons

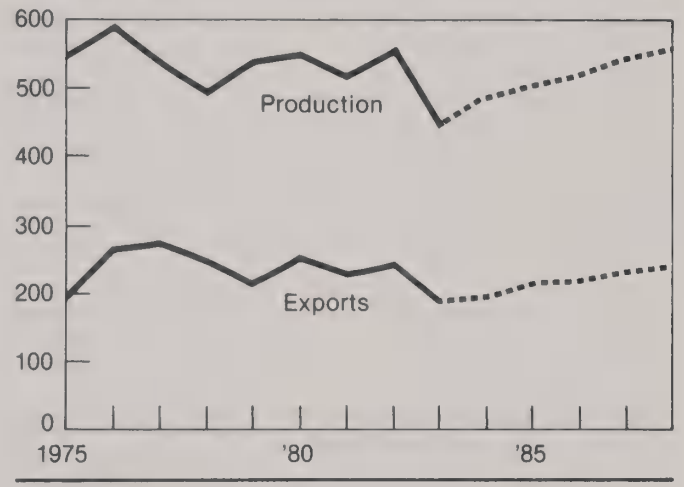


Table 6.—Australian sheep inventory, exports, and slaughter

Year	Beginning inventory		Lamb crop	Live exports	Slaughter	Slaughter rate
	Total	Ewes				
			Thousand head			*Percent*
1975	151,653	77,682	44,121	1,574	30,293	20.0
1976	148,643	76,163	38,382	2,633	33,655	22.6
1977	135,360	71,071	39,490	4,492	30,503	22.5
1978	131,445	69,021	42,530	4,905	27,475	20.9
1979	134,222	70,591	45,784	5,273	29,551	22.0
1980	135,985	71,477	43,715	5,739	30,403	22.4
1981	134,407	71,773	44,797	3,850	28,803	21.4
1982	137,976	73,286	45,615	6,297	30,651	22.2
1983	133,186	71,189	42,000	7,100	25,700	19.3
1984 proj.	134,500	72,500	45,750	6,800	27,500	20.4
1988 proj.	144,000	76,500	47,500	7,200	31,000	21.5

Slaughter rates are expected to continue relatively low. With recovery in average slaughter weights and numbers, mutton production will increase slowly from 1983's low of 178,000 tons to about 265,000 tons by 1988. Lamb production will also trend upwards.

High Prices May Temper Domestic Meat Consumption

Australian meat consumption has trended downward since the mid-1970's, a time of abundant supplies and low prices. Red meat consumption has dropped sharply while poultry consumption has increased. Per capita consumption of all meats and seafood declined from over 120 kilograms in the mid-1970's to 103 in 1983. Even with the anticipated economic expansion, per capita use will likely remain near this level in the next few years because of higher real prices resulting from limited meat supplies.

Demand for beef is very price-responsive in Australia. Consumption expands during periods of surplus and low prices, but as supplies decline and prices rise, the export market outbids domestic users. With supplies limited and prices increasing through the 1980's, per capita beef and veal consumption may remain near 40 kilograms, very low by historical standards.

Sheepmeat consumption in Australia has declined for over 2 decades. Consumer tastes have shifted sharply away from mutton, which has come to be considered an inferior item, and per capita consumption may stay near 3 kilograms. Demand for lamb has also weakened, but because of high beef prices, per capita lamb consumption is expected to stabilize at about 15 kilograms. Efforts are underway to promote lamb consumption by introducing more attractive retail cuts and bringing lamb into the fast food industry. Export demand has become stronger than demand on the domestic market, particularly for mutton.

The decline in real prices and expansion of the fast food industry have raised poultry consumption in the past decade, and poultry's share of the Australian diet will likely continue to expand at the expense of red meats. Assuming plentiful feed supplies, the outlook for poultry is favorable through the 1980's.

Pork may benefit from short supplies of other red meats, and per capita consumption may resume its expansion as economic growth accelerates. Pork producers in Australia are striving to produce leaner meat to counter consumer concerns about fat in the diet.

Beef Export Demand Strong; Sheepmeat Market Less Buoyant

Strong demand is expected to characterize the world beef market in the mid-1980's. Australian exportable supplies will remain depressed. Cattle herds in Canada and New Zealand have also been drawn down in recent years, reducing supplies for export. Brazil, Argentina, and the European Community may be the only major exporters able to expand exports substantially in the short term. If a restrictive dairy policy is enacted in the European Community, their surplus beef supplies will decline in coming years.

U.S. nonfed beef supplies may decline somewhat in the mid-1980's. Under the countercyclical U.S. meat import formula, more fresh and frozen beef will be allowed into the United States. Australia will likely respond by increasing exports to the high-price U.S. market at the expense of some other markets. The important Japanese market will be preserved; the proportion of fed beef exported to Japan will probably be increased as producers and processors recognize that the long term potential for exporting high-quality beef to Japan is greater than for nonfed beef. Total Australian beef exports are forecast at about 620,000 tons a year for 1985-88, almost 30 percent below the 1979-83 average.

Global demand for sheepmeat is not expected to grow substantially in the next several years, and demand for mutton may be quite weak. Imports by the Middle East will continue to increase but at a slower pace than in recent years. Imports of the centrally planned countries are likely to continue to slip. In lamb, New Zealand will remain a fierce competitor, as producers there would likely respond quickly to any price strength. Australian lamb exports are expected to decline sharply because of short supplies and large live sheep exports. Mutton exports are expected to continue near recent volumes but at a low price.

Table 7.—Australian per capita consumption of meat and seafood

Year	Beef and veal	Lamb	Mutton	Pork	Poultry meat[1]	Seafood[1]	Total
				Kilograms			
1974	54.4	17.0	7.3	12.6	14.4	7.7	113.4
1975	67.0	16.1	7.3	11.6	13.5	6.4	121.9
1976	67.8	15.6	5.6	11.8	14.8	6.6	122.2
1977	68.6	15.5	3.4	12.6	16.1	7.0	123.2
1978	65.6	14.1	3.1	13.1	17.5	6.9	120.3
1979	48.9	14.8	5.4	13.1	19.6	6.6	108.4
1980	45.0	15.1	4.5	14.8	21.1	6.8	107.3
1981	47.8	15.7	3.2	14.8	18.9	7.5	107.9
1982	49.7	16.6	4.0	14.2	18.9	7.4	110.8
1983	43.0	15.5	2.8	14.8	19.2	7.0	102.3
1984 proj.	40.8	15.0	2.9	14.4	19.4	7.5	100.0
1988 proj.	40.0	15.0	3.0	15.0	23.0	7.0	103.0

[1] July-June years; for example, 1974 = 1973/74.

Australian live sheep exports reached 7.1 million head in 1983 and are forecast to remain near 7 million annually through the 1980's. Middle East demand for live lambs is growing with widening prosperity, but prospects for live sheep trade with Iran remain highly uncertain.

Favorable Returns Ahead

Prospects indicate strong beef prices through the mid-1980's. Beef prices are thought to be determined largely by beef prices in the United States and the exchange rate between the Australian and U.S. dollars. Demand for meat is robust in many of the developed countries as the economic recovery gets underway. Assuming normal weather and worldwide economic growth, cattle should be a profitable enterprise in Australia for several years.

Lamb prices are set largely by demand on the domestic market. Rising consumer incomes and high beef prices will support lamb prices, but mutton prices may remain rather weak. If the optimistic expectations for wool are realized, then sheep raising will be profitable through the 1980's.

The outlook for the Australian slaughtering industry is pessimistic. Substantial excess capacity has burdened the industry for several years, and in 1984 the number of animals slaughtered will likely be at a 10-year low. Recovery will be very slow, and employment may decline further. If slaughterhouses in more isolated areas are forced to close, producers in these areas could be seriously hurt.

Weather, Other Variables Could Alter Outlook

The projections assume the absence of weather extremes in Australia during the forecast period. Unusually good weather would likely further encourage the expansion of crop area. The resulting abundance of feedstuffs would favor the poultry, hog, and, possibly, dairy sectors. With improved pasture and forage supplies, livestock growth rates and fertility would also be improved. Thus, improvements in calving and lambing rates and weight gain would offset, in the short run, any reduction in resources to the livestock sector.

On the other hand, extremely poor weather would hurt livestock performance. With both cattle and sheep numbers low, producers should be better able to maintain their herds in a new drought. The severity of the 1982/83 drought is inducing many farmers to store silage in 1983/84, which would help in retaining the herd. Nevertheless, a serious new drought, following so quickly the last one, would further undermine confidence in cattle.

Another major unknown is the level of U.S. beef prices during the forecast period. Australian cattle producers would respond to a period of extremely high prices, but it is uncertain whether the response would be to maximize short term earnings or to retain animals to rebuild the herds to meet long run export goals.

Table 8.—Average saleyard prices of Australian beef, lamb, and mutton[1]

Year	Beef	Lamb	Mutton
		Cents per kg	
1980	145.0	130.4	74.7
1981	123.7	128.8	78.6
1982	113.1	106.3	56.7
1983 prel.	150.0	109.0	60.0
1984 proj.	165.0	122.0	70.0

[1]Dressed weight. Source: Australian Bureau of Agricultural Economics

Grain Stock Policy in the U.S., Canada, and Australia

Carol A. Goodloe[1]

Abstract: The management and behavior of grain stocks vary considerably in the major grain-exporting countries. The United States and Canada react to changes in domestic supplies primarily by adjusting stocks and domestic use, whereas Australia relies primarily on adjustments in trade. Ending stocks in the United States and Canada tend to adjust to changes in world price, but Australian stocks do not.

Keywords: Wheat, coarse grains, stocks, policy, United States, Canada, Australia.

The United States, Canada, and Australia are major grain exporters and, as such, share certain agricultural policy concerns: maintaining adequate supplies to meet domestic consumption and export requirements, and meeting food aid commitments. But the United States dominates the grain stocks statistics, holding about one-third of the world's wheat stocks and well over half of the world's coarse grain stocks in recent years (table 9). Canada is the second largest holder of wheat and coarse grain stocks, although it has the largest storage capacity in the world relative to production, population, or trade. Australian grain stocks are relatively small, despite its position as a major wheat exporter.

These stock figures bring many questions to mind. Why are the United States' stocks so large relative to those of its major competitors? Who owns stocks in these countries and what are their purposes for holding stocks? How do the management and behavior of grain stocks in the three countries compare?

Table 9.—Ending stocks of wheat and coarse grains, 1978/79-1982/83

Grain/country	Average ending stocks	Share of world Prod.	Use	Stocks
	Million tons		*Percent*	
Wheat				
U.S.	30.0	14.5	5.2	34.5
Canada	11.0	4.9	1.2	12.7
Australia	3.0	3.1	0.8	3.4
Coarse grains				
U.S.	62.4	31.0	21.3	59.7
Canada	3.0	3.1	0.8	3.4
Australia	0.8	0.8	0.4	0.7

[1]Agricultural economist, International Economics Division, ERS. This article is taken from *Global Stocks of Grain: Implications for U.S. Grain Policy*, by Jerry A. Sharples and Carol A. Goodloe. ERS Staff Report No. AGES840319. Economic Research Service, USDA, April 1984.

Ownership and Control of Stocks

In the early 1960's most stocks in the United States were Government-owned. But, by the mid-1970's, with the surge in world demand for grain, stocks declined and most grain was privately owned. The farmer-owned reserve (FOR) program, introduced in the late 1970's, provides storage subsidies to producers. The FOR allows farmers to retain ownership of their grain until prices rise to certain levels specified by the Government. The farmer receives storage payments and a loan at below-market rates, using the grain as security, and agrees to store and maintain the grain for up to 3 years. The bulk of the country's grain stocks is now stored on farms, and much of the grain stored off farm is owned by producers. A few very big grain firms own large commercial storage facilities. The large stock buildup during the early 1980's consisted of relatively small quantities of Government-owned stocks, large quantities of FOR stocks, and some unsubsidized private stocks.

Grain stocks in Canada are jointly influenced by the operations of the CWB—the sole legal exporter of western wheat, oats, and barley—and the grain handling and transportation system. Stocks are held both on farms and in commercial facilities, and are owned privately or by the CWB. Private nonfarm stocks are usually small relative to total stocks—5 percent or less. Virtually all off-farm storage space is owned privately or cooperatively.

In Australia, the AWB is the sole authority for marketing wheat and administers wheat stocks. State statutory marketing bodies and grower cooperatives administer barley and sorghum stocks. State bulk handling authorities act as agents for the AWB and perform all marketing activities. Farmers must deliver all wheat to the AWB, except that used on farm. Thus, on-farm storage for wheat is not as important as in the United States or Canada. The share of production received by the barley boards is less than for wheat, and nonboard stocks are more important than for wheat.

Factors Affecting U.S. Stock Levels

Both market forces and domestic farm policy have determined stock levels in the United States. Government-owned or subsidized stocks increase when the price sup-

port provided by the loan rate props up the domestic and world price. Stocks decrease when the market price exceeds the support level, and also when grain production is restricted by cropland diversion.

Variation in world grain prices provides profit opportunities for the competitive storage industry in the United States. In the process of capturing profits, the sector stores grain when prices are low and releases grain when prices are high, which offsets some price instability. Nevertheless, price stabilization provided by both the loan rate and accumulated Government stocks reduces the potential for profits from storing unsubsidized stocks.

Research shows that Government stocks discourage private stocks. That is, if total grain stocks carried over at the end of the marketing year increase, they increase by less than the amount placed in the FOR, for two reasons. First, farmers would store some grain even if there were no FOR. Second, as grain accumulates in the FOR, farmers' expectations of future price increases are lowered and less grain is stored.

In Canada and Australia

The CWB uses stocks as a policy instrument to achieve its overall marketing objectives—for example, to support prices or maximize export sales. The mechanism by which stocks are determined is the CWB's quota delivery system. Large delivery quotas, which primarily reflect export demand, allow farmers to move more grain off their farms and thus reduce stocks. Small quotas result in larger on-farm stocks, all other factors being equal. Farm stocks, in turn, affect acreage and production decisions.

The size of delivery quotas also reflects the ability of the Canadian transportation system to move grain from the farm to export positions. During the second half of the 1970's, the deteriorating rail network and poor grain handling system contributed to lower exports and larger stocks than desired. The inadequate rail system stemmed from the low rates farmers paid to ship their grain, which reduced the railroads' incentive to invest and maintain grain transportation facilities.

Farmers generally do not have an incentive to store grain throughout a marketing year, because all deliveries to the CWB receive the same price. However, farmers may choose to deliver grain if the CWB announces lower prices for the next marketing year or to store grain if a price rise is ahead. In addition, wheat and feed grain policy sometimes results in domestic prices different from export prices. The differential can influence farmers' decisions to store grain, deliver for export to the CWB, or deliver to the domestic feed market.

AWB policy is the main influence on wheat stocks in Australia. Unlike U.S. and Canadian policy, AWB policy does not promote maintaining large carryover stocks under normal conditions. Instead, excess supplies are exported. The state barley boards appear to follow the same strategy, although there is some private (nonboard) stockholding for speculative purposes. Extremely good crops have on occasion resulted in a temporary buildup of wheat stocks (1968-70 and 1978/79). The AWB instituted delivery quotas between 1969/70 and 1974/75 because high guaranteed prices stimulated production, export markets were limited, and the storage system could not handle the increased supplies.

The AWB operates similarly to the CWB. Each producer receives an initial payment upon delivery, minus AWB expenses, and a final pooled payment after all the wheat in the pool has been sold. Since each delivery receives the same price throughout a marketing year, there is little incentive for a farmer to store wheat.

Grain Stock Behavior In a World Context

When a major grain-producing country harvests an unusually small or large crop, it can absorb that shock at home by adjustments in consumption or stocks, or it can transfer the shock abroad by holding consumption and stocks constant and adjusting the quantity traded. When changes in annual supply (production plus beginning stocks) during 1960-82 are examined, some patterns emerge:

- The United States and Canada absorb over half their wheat supply shocks by adjusting stocks (table 10). Australia divides its adjustment fairly evenly between stocks and trade. None of the countries shows much adjustment in domestic use.
- Coarse grain stocks absorb less domestic supply variability than do wheat stocks, although the United States still absorbed almost half of its supply shocks through adjustments in stocks. Australia adjusted to changes in supply chiefly through trade.
- In contrast to wheat, coarse grains showed significant changes in domestic use in Canada and the United States, primarily reflecting adjustments in livestock feeding.

Because some countries transfer the impact of their own production variability abroad, other countries must absorb that impact. If a country's ending stocks vary inversely with world prices—that is, if stocks increase when prices are low and decrease when prices are high—

Table 10.—The allocation of wheat and coarse grain supply shocks among domestic use, trade, and stocks

Grain/country	Supply		Share of supply shock absorbed by		
	1978/79-82/83 average	23-year standard error	Dom. use	Trade	Stocks
	Million tons		*Percent*		
Wheat					
United States	94.8	10.9	15	21	3
Canada	33.0	4.5	4	36	60
Australia	17.0	2.9	0	53	47
Coarse grains					
United States	295.1	26.3	42	9	49
Canada	28.5	2.5	36	27	37
Australia	6.5	1.3	22	62	16

a country manages its stocks so as to absorb some of the world's grain market instability. On the other hand, if a country's stocks increase when prices are high and decrease when prices are low, this indicates stock management that increases world grain market instability.

To help understand how the three countries respond to surpluses and shortages on the world grain market, the relationship between world prices and ending stocks for the period 1960-82 was examined. The data in table 11 are the results of this analysis and provide evidence that over the period only the United States made stock adjustments that added stability to the world grain market. Although Canada's grain stocks vary inversely with world price, the statistical results are inconclusive. Other studies have found Canada's wheat stocks to be responsive to world wheat prices, however, and the combined evidence suggests that grain stocks in Canada tend to add somewhat to stability in world grain markets. Ending stocks in Australia do not appear to adjust to world price.

Table 11.—Relationship between ending grain stocks and world prices[1]

Country	Price coefficient	
	Wheat	Coarse grains
U.S.	−.165*	−.581*
Canada	−.042	−.014
Australia	.017	.001

[1]Estimated from the equation $S=a_0+a_1P$, where S is annual change in ending stocks in million tons and P is the annual change in the price of U.S. hard spring wheat, f.o.b. Gulf ports. Starred coefficients are significant at the 95-percent confidence level.

Table 12.—U.S., Canada, and Australia crops: area, yield, supply, and use

Country and Crop	Harvested area	Yield	Beginning stocks	Production	Total supply[1]	Exports	Consumption
	Million hectares	*Tons per ha*			*Million tons*		
U.S.							
Wheat							
1981	32.8	2.32	26.9	76.2	103.2	48.2	23.3
1982	31.9	2.39	31.7	76.5	108.4	41.1	25.4
1983	24.9	2.65	41.9	66.0	108.0	38.1	32.1
1984			37.8				
Coarse grains							
1981	43.6	5.71	34.7	249.0	283.9	58.6	156.8
1982	43.6	5.84	68.5	254.6	323.5	54.0	171.2
1983	32.9	4.19	98.3	138.0	236.8	55.0	156.8
1984			25.0				
Soybeans							
1981	26.9	2.03	8.7	54.4	63.1	25.3	30.6
1982	28.3	2.15	7.2	60.7	67.9	24.6	32.9
1983	25.2	1.73	10.4	43.4	53.8	19.7	30.0
1984			4.1				
Canada							
Wheat							
1981	12.4	2.00	8.6	24.8	33.4	18.4	5.2
1982	12.6	2.13	9.8	26.8	36.5	21.4	5.1
1983	13.7	1.96	10.0	26.9	36.9	21.5	5.1
1984			10.3				
Coarse grains							
1981	9.2	2.83	5.5	26.0	32.3	7.5	18.3
1982	8.9	2.99	6.5	26.7	34.0	6.2	19.5
1983	7.9	2.70	8.3	21.3	30.2	7.4	18.5
1984			4.3				
Rapeseed							
1981	1.4	1.30	1.3	1.8	3.2	1.4	1.1
1982	1.8	1.22	.7	2.2	2.9	1.3	1.1
1983	2.3	1.17	.5	2.7	3.2	1.4	1.3
1984			.5				
Australia							
Wheat							
1981	11.9	1.38	4.6	16.4	20.9	12.1	3.9
1982	11.5	.77	4.9	8.9	13.8	7.3	4.1
1983	12.6	1.70	2.4	21.4	23.8	13.0	3.3
1984			7.5				
Coarse grains							
1981	4.8	1.37	.7	6.6	7.3	3.0	4.0
1982	4.5	.84	.3	3.7	4.1	.8	3.2
1983	6.0	1.53	.1	9.3	9.4	4.4	2.7
1984			2.3				

[1]Includes imports. 1983 and 1984=estimates. Source: USDA, World Agricultural Supply and Demand estimates and other reports.

Table 13.—U.S., Canada, Australia, and New Zealand livestock: supply and use

Item and year	Beginning inventories	Births	Total supply[1]	Slaughter	Exports	Other disappearance
			Million head			
U.S.						
Cattle & calves						
1982	115.6	44.4	161.0	39.3	.1	6.4
1983	115.2	44.1	160.2	40.2	.1	5.9
1984	114.0	43.6	158.6	39.1	.1	5.6
1985	113.8					
Hogs						
1982	58.7	84.0	142.9	82.8	—	6.2
1983	53.9	92.2	146.6	87.5	—	5.9
1984	55.8	88.5	144.8	86.2	—	5.4
1985	53.2					
Canada						
Cattle & calves						
1982	12.1	4.4	16.6	4.4	.3	.3
1983	11.6	4.3	15.9	4.4	.3	—
1984	11.2	4.2	15.4	4.3	.1	.1
1985	10.9					
Hogs						
1982	10.0	14.0	24.0	13.6	.3	.2
1983	9.9	14.7	24.6	14.0	.4	.1
1984	10.1	15.0	25.1	14.2	.5	.2
1985	10.2					
Australia						
Cattle & calves						
1982	24.5	8.7	33.2	9.4	.1	1.2
1983	22.5	7.9	30.4	8.0	.1	.6
1984	21.7	8.3	30.0	7.2	.1	.6
1985	22.0					
Sheep & lambs						
1982	138.0	45.6	183.6	30.7	6.3	13.4
1983	133.2	42.0	175.2	25.7	7.1	7.9
1984	134.5	45.7	180.2	27.5	6.8	8.4
1985	137.5					
New Zealand						
Cattle & calves						
1981/82	8.0	3.3	11.3	3.2	—	0.2
1982/83	7.9	3.3	11.2	3.0	—	0.5
1983/84	7.7	3.0	10.7	2.9	—	0.3
1984/85	7.5					
Sheep & lambs						
1981/82	69.9	48.1	118.0	41.1	—	6.6
1982/83	70.3	50.5	120.8	46.4	—	4.6
1983/84	69.8	49.6	119.4	44.1	—	5.3
1984/85	70.0					

[1]Includes imports. For all countries, last 2 years are estimates. — = none or negligible. Source: USDA, World Agricultural Supply and Demand estimates and other reports.

Table 14.—U.S., Canada, Australia, and New Zealand meat: supply and use

Item and year	Beginning inventories	Production	Imports	Total supply	Consumption	Exports
			1,000 tons			
U.S.						
Beef & veal						
1982	121	10,425	888	11,434	11,183	115
1983	136	10,742	885	11,763	11,463	149
1984	151	10,498	859	11,508	11,240	128
1985	140					
Pork						
1982	120	6,454	278	6,852	6,656	97
1983	99	6,880	319	7,298	7,062	99
1984	137	6,728	295	7,160	6,941	91
1985	128					
Canada						
Beef & veal						
1982	16	1,029	88	1,133	1,037	83
1983	13	1,050	86	1,149	1,052	87
1984	10	1,025	95	1,130	1,028	95
1985	7					
Pork						
1982	12	833	14	859	687	163
1983	9	875	16	990	730	160
1984	10	885	15	910	738	160
1985	12					
Australia						
Beef & veal						
1982	67	1,676	—	1,743	751	942
1983	50	1,396	—	1,446	650	728
1984	68	1,316	—	1,384	640	680
1985	64					
Lamb & mutton						
1982	48	557	—	605	312	239
1983	54	450	—	504	290	177
1984	37	485	—	522	285	190
1985	47					
New Zealand						
Beef & veal						
1981/82	59	517	—	576	154	342
1982/83	80	519	—	599	155	371
1983/84	73	465	—	536	155	335
1984/85	48					
Lamb & mutton						
1981/82	119	625	—	744	99	460
1982/83	185	681	—	866	100	557
1983/84	209	654	—	863	100	580
1984/85	183					

For all countries, last 2 years are estimates. — = none or negligible. Source: USDA, World Agricultural Supply and Demand Estimates and other reports.

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